

THE *Soybean Digest*

OFFICIAL PUBLICATION • AMERICAN SOYBEAN ASSOCIATION



Frozen desserts, new market for soy oil. See page 14.

MARCH ♦ 1953

VOLUME 13 ♦ NUMBER 5

**Better Solvents
mean
Better Products**



It takes more than a recipe...

Skellysolve for Animal and Vegetable Oil Extraction

Applications

SKELLYSOLVE-B. Making edible oils and meals from soybeans, corn germs, flaxseed, peanuts, cottonseed and the like. Closed cup flash point about -20°F .

SKELLYSOLVE-C. Making both edible and inedible oils and meals, particularly where lower volatility than that of Skellysolve-B is desired because of warm condenser water. Closed cup flash point about 13°F .

SKELLYSOLVE-D. Quality solvent at competitive prices. For degreasing meat scraps, extracting oil-saturated fuller's earth, general extraction uses. Closed cup flash point about 3°F .

SKELLYSOLVE-F. Extracting cottonseed meals and other products in laboratory analytical work. Originally made to conform to A.O.C.S. specifications for petroleum ether, and for pharmaceutical extractions, where finest quality solvent is desired. Closed cup flash point about -50°F .

SKELLYSOLVE-H. Making edible and inedible oils and meals where greater volatility is desired than that of Skellysolve-C or -D. Closed cup flash point about -20°F .

"Doc" MacGEE Says: There's a big difference in what two different housewives can do with the same recipe! In solvents, too, skill, experience and "the will to do" make the big difference . . . big reasons why Skellysolve is equipped to serve you better. A pioneer in the solvents field, Skellysolve has "lived with" the needs of your industry for years and years . . . has first-hand knowledge that saves you time and money.

You know you're right with Skellysolve's uniformity. Every batch *must* be right before it leaves the Skelly refinery! When it's Skellysolve, you're sure of the same boiling ranges, the same low order of tox-

icity, the same low sulphur content with every delivery.

Strict laboratory controls constantly checking on the most modern manufacturing processes also assure sweet odor, low end points, a minimum of excessively volatile compounds, and a very low level of unsaturates and pyrogenic decomposition products. End result: low solvent losses, fast vaporization from oils and meals.

Find out how you'll profit with Skellysolve's proved dependability of quality and supply. Write for technical facts. For special studies of your solvent problem, call in the Skellysolve Technical Fieldman.



Skellysolve

SOLVENTS DIVISION, SKELLY OIL COMPANY
KANSAS CITY, MISSOURI

THE Soybean Digest

REG. U. S. PAT. OFF.

HUDSON, IOWA

Business, publication and circulation offices, Hudson, Iowa. Editor, Geo. M. Strayer, Managing Editor, Kent Pellett, Business Manager, Geo. McCulley, Director of Circulation, Delmar C. Coble.

Advertising representatives: Ewing Hutchison Co., 35 E. Wacker Drive, Chicago 1, Ill.

Vol. 13

MARCH • 1953

No. 5

Published on the 10th of each month at Hudson, Iowa, by the American Soybean Association. Entered as second class matter November 20, 1946, at the postoffice at Hudson, Iowa, under the Act of March 3, 1879. Forms close on 25th of month preceding. Subscription price to association members, \$2.50 per year; to non-members, \$3.00 per year; Canada and other members of the Pan-American Union, \$3.50; other foreign, \$4.00.

IN THIS ISSUE

Editorials

GEO. M. STRAYER

Activities of Your Association	6
Late News	8a
Growers	10
Break U. S. Yield Record	10
Much Seed of Poor Germination	12
Another Outlet for Vegetable Oils	14
New Rule on Fertilizer	16
Soybeans on Nebraska Sand	18
Donald G. Hanway	
Soy Flour and Milk Powder in Europe	20
W. BENING	
Best Adapted Varieties Map	22
Suggest Research on Soy Proteins	24
Six States to Peoria Conference	25
Publications	26
Books	27
Feeding	28
Letters	29
Grits and Flakes	30
New Products and Services	36
Washington Digest	38
Wayne Darrow	
Market Street and Seed Directory	41
Markets	43

THE AMERICAN SOYBEAN ASSOCIATION

OFFICERS: President, Chester B. Biddle, Remington, Ind.; Vice President, Jake Hartz, Jr., Stuttgart, Ark.; Secretary-Treasurer, Geo. M. Strayer, Hudson, Iowa.

DIRECTORS: Jake Hartz, Jr., Stuttgart, Ark.; C. G. Simcox, Assumption, Ill.; Albert Dimond, Lovington, Ill.; LeRoy Pike, Pontiac, Ill.; Ersel Walley, Fort Wayne, Ind.; Chester B. Biddle, Remington, Ind.; Geo. M. Strayer, Hudson, Iowa; Howard L. Roach, Plainfield, Iowa; John W. Evans, Montevideo, Minn.; Herbert H. Huddleston, Lamont, Miss.; Edward Tillman, Caruthersville, Mo.; O. H. Acorn, Wardell, Mo.; John Sawyer, London, Ohio; David G. Wing, Mechanicsburg, Ohio; H. H. Peck, River Canard, Ontario, Canada.

MARCH, 1953

THE PART PURINA PLAYS IN THE SOYBEAN CYCLE



From your farm, your soybeans move to

A country elevator
or directly to

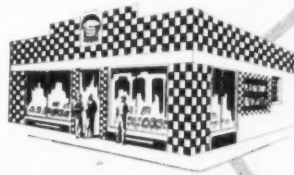


One of Purina's six soybean processing plants at one of many other processing plants. Soybean meal from both sources goes to

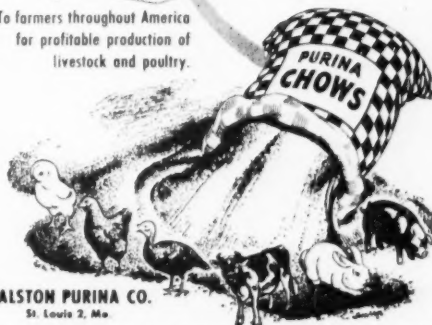
A Purina Chow Mill, where the meal from your soybeans and other ingredients are combined to make research-proved Purina Chows



Which are distributed through Purina Dealers



To farmers throughout America for profitable production of livestock and poultry.



RALSTON PURINA CO.
St. Louis 2, Mo.

One of the farmer's best customers for soybeans and grains

EDITOR'S DESK

ANOTHER TRY AT REPEALING PROCESSING TAX

which has been referred to the Committee on Ways and Means.

This is a reintroduction of the same basic bill introduced two years ago by Havenner of California. It would remove the processing tax on coconut oil and copra imported from the Philippine Islands. With the large current supplies of soybean and cottonseed oil it would, in effect, lower the price of these two domestically produced oils by the amount of the current processing tax on coconut oil—2 cents per pound.

The American Soybean Association has, over a period of years, opposed such legislation. It was first placed on our statute books when soybean oil was selling for 3 cents per pound, and when all fats and oils of domestic production were on the rocks, pricewise. Today soybean and cottonseed oil are selling cheaper than coconut oil after discounting the processing tax. Thus, coconut oil would merely be brought into competitive position by passage of this bill.

However, until other commodities are also brought into competitive price relationship, and until the products the farmer buys are produced and sold without benefit of tariff, we must continue to oppose removal of the processing tax on coconut oil. When and if all other industries are placed on a directly competitive basis we in the soybean industry should also expect to compete with fats and oils on world markets.

For your own benefit and protection see that your Congressman knows you are opposed to H. R. 2915, and that he opposes the inclusion of provisions of this bill in any other tax bill. Supporters of the move may be expected to try to make it a part of some other measure, for easier passage.

100 BUSHELS OF SOYBEANS PER ACREP

How far can we go in increasing soybean yields? What is the potential top yield for this crop? What are the factors limiting increased soybean yields? Moisture? Sunlight? Soil nutrients?

Students of the subject have, in past years, predicted potential maximum yields of 70 bushels per acre. The 1952 winner in the Iowa Master Soybean Yield Contest produced an average yield, weighed over the scales and on a measured tract of land, of over 62 bushels per acre—only eight bushels short of the suggested potential. The highest officially checked yield in any contest in Iowa or other states in any year since the contests were instituted, this 1952 yield suggests that the potential figure may have to be revised.

Reports from Southern states tell of even higher yields reported—but not officially confirmed. It is reasonable to assume that in those areas of longer growing season and greater annual rainfall the potential yield is even higher than in Iowa. Should we suggest that a concerted study be made of the reports submitted in the

Congressman Allen of California has introduced in the House of Representatives at Washington H. R. 2915,

various state soybean yield contests to determine those factors which seem to limit top yields? And those factors which have produced the highest yields to date?

Have we not placed our sights too low—at 70 bushels? When 225-bushel corn yields are an actuality? Are 100-bushel soybean yields within the realm of possibilities? Why not?

A FRIEND ADVANCES AT WASHINGTON

Advancement of Martin G. Weiss to head the research in field crops in the Bureau of Plant Industry of the United States Department of Agriculture comes as a pleasant surprise to members of the soybean industry. It is deserved recognition, and one in which our industry concurs.

At the same time it creates a vacancy at the head of federal soybean varietal development work which will be hard to fill. The second largest cash grain crop through this great Mid-American section is deserving of a man of merit and experience. The retirement of W. J. Morse and now the advancement of Weiss leave a gap which will not be easily filled. The shrinkage of funds for federal soybean varietal work in recent years has made it necessary to retract, rather than expand, that work. There are excellent men now in this soybean work at the lower levels. It will be necessary to bring new men in if experienced and competent men are to continue to advance.

As Weiss moves up we know he will give proper emphasis and attention to keeping the ranks closed below so that maximum results may be a continuing result of the soybean work by USDA and cooperating states. There is still much work to be done in soybean varietal development, especially in the field of disease resistance. We have merely scratched the surface.

OUR BEST PRICE INSURANCE

Exports of soybeans from the United States are running far ahead of the past year. In the first four months of the 1952-crop season the bushelage exported approximately equals the total 1951-crop export.

Price is a factor. Shipments closer to desired quality, due to apparent closer grading and buyer requests for appeal on grades, are a factor. Absence of Manchurian shipments in European markets is another factor. Freer exchange of currencies has helped.

The effect of lifting the blockade on Formosa cannot be measured yet. Probably it will mean no Manchurian soybeans will become available in European markets during the current crop year.

With some processing plants closed down, others operating at partial capacity, meal and oil prices depressed in the U. S. it is entirely possible that exports of U. S. soybeans may reach 40 million bushels from the current crop.

Without this export market 1952-crop soybeans might be selling at a mighty cheap price right now. A healthy domestic market, together with export demand to absorb tonnage not needed at home, is the soybean grower's best price insurance.

Structurally Strong- PROTECTS GRAIN

Another **BUTLER** Bolted Steel Grain Tank Profit Feature

You'll be *sure* of complete protection for your grain because these features of Butler Bolted Steel Grain Tanks . . . all-steel, precision construction and special engineering . . . provide positive weather-tightness. The die-formed, heavy gage steel parts of Butler Tanks bolt rigidly together . . . form a rugged structure with more than ample strength to withstand all load pressures of stored grain, wind and weather.

Here are some of the design features that add to the strength and durability of Butler Tanks:

1. FOR GREATER RIGIDITY, heavy steel Z-bar stiffeners bolt to inside walls where design requires extra vertical strength.
2. FOR ADDED SECURITY, twin trusses are used to support the roof deck and they are securely anchored to the top flange of walls.
3. FOR INCREASED SUPPORT, rafters are supported at center of tank by heavy rafter ring.
4. FOR EXTRA STRENGTH, bolt retainer channels hold bolts securely and add extra stiffening at vertical seams.
5. FOR SAFER STABILITY, anchor bolts and stirrups firmly secure the tank to foundation.
6. FOR COMPLETE SAFETY, all Butler Bolted Steel Grain Tanks are designed by Registered Professional Engineers.



Butler Tank Design Features Mean Savings and Profits for You!

LOW INITIAL COST . . . for savings from the start.

FAST, EASY ERECTION . . . for greater labor savings.

LOW UPKEEP . . . for savings every day.

WEATHER-TIGHT . . . for greater grain protection.

FIRE-SAFE . . . for lower insurance rates.

EASILY FUMIGATED . . . to prevent costly grade losses.

Mail Coupon Now for All the Facts!

KANSAS CITY, MO.

Birmingham, Ala. — Richmond, Calif.
Galesburg, Ill. — Minneapolis, Minn.



OIL EQUIPMENT — STEEL BUILDINGS
FARM EQUIPMENT — CLEANERS EQUIPMENT
SPECIAL PRODUCTS

For prompt reply, address office nearest you:

BUTLER MANUFACTURING COMPANY

7461 East 13th St., Kansas City 26, Missouri
961 Sixth Ave., S.E., Minneapolis 14, Minnesota
Dept. 61, Richmond, California

☐ Contact me to discuss my storage plans.
☐ Send me the Bolted Steel Grain Tank Catalog.

Name _____
Firm _____
Address _____
City _____ Zone _____ State _____

ACTIVITIES OF YOUR ASSOCIATION

LATE NEWS. Response to the new feature of the Digest, Late News has been enthusiastic, if the number of subscriptions to the complete service is any indication. A considerable number has been received, and this without any solicitation other than the coupon carried in our last issue.

You will find Late News on page 3a if you somehow missed it in February.

Late News was established to speed up our information service to our members and to the industry. It will carry market news, crop news, the latest word from Washington and happenings in the industry, all of much later date than can normally be carried in a monthly publication.

This is possible because Late News is made up just as the Digest goes to the bindery. It will carry the last minute information up to within a few days of the time the Digest is in your hands each month.

Our readers seem to like the idea. Approval has come not just from one group but from all—from producers, grain handlers, processors and others.

This is the deal. Late News, which is edited by the regular Digest staff with the help of many close observers in the industry, will appear in each issue of the Digest. In addition, Late News will be mailed out by first class mail 20 times a year to those members who wish the service. This will give you a more constant and

up-to-date source of information than you can obtain through the monthly magazine alone.

Cost will be small—only \$7.50 per year to Association members. Next issue will appear Mar. 25 and will be mailed only to those members who have subscribed.

We suggest you turn to Late News now. If it is what you need on your farm or in your business, just fill out the coupon at the end of the Late News section and mail it in today.

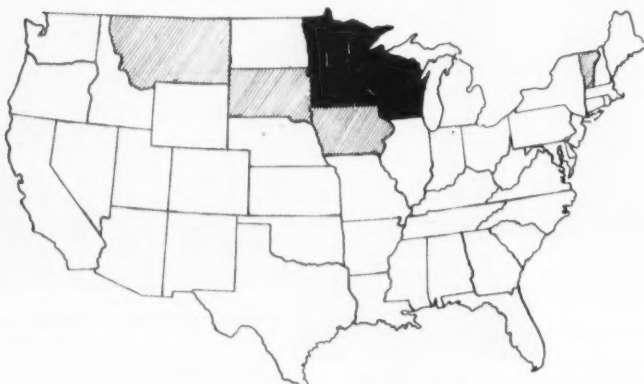
MARGARINE. Apparently four more states are about to join the yellow margarine states, with appropriate action by their legislatures.

In Vermont a bill repealing the yellow color ban but not license fees passed both houses of the legislature and was signed by the governor in January. The law is effective immediately.

In Montana a bill to allow tax-free yellow margarine passed both houses in mid-February and was effective on signature by the governor.

Similar bills also passed both houses of South Dakota and Iowa legislatures. In both states the House bills were sent back to the Senate for concurrence, to eliminate differences between the bills in the two houses.

In Iowa butter spokesmen put up a last ditch fight to retain an amendment to require that margarine be put up in triangular packages, but this failed to get through the House.



ADVANCE OF YELLOW MARGARINE. Black states prohibit yellow margarine. Legislatures of shaded states are acting this year. White states permit its sale.

**THE AMERICAN
SOYBEAN ASSOCIATION**

Objectives of the American Soybean Association include the bringing together of all persons interested in the production, distribution and utilization of soybeans, the collection and dissemination of the best available information relating to both the practical and scientific phases of the problems of increased yields coupled with lessened costs, the safeguarding of production against diseases and insect pests, the promotion of the development of new varieties, the encouragement of the interest of federal and state governments and experiment stations, and the rendering of all possible services to the industry.

The American Soybean Association was particularly active in the Iowa battle, along with Iowa retail grocers and other groups.

In Iowa a bill to repeal the 5-cents-per-pound tax on margarine passed the Senate by a 38 to 12 majority and is now pending in the House.

MELLORINE. A model bill to legalize the sale of "Mellorine," or frozen desserts containing vegetable oils, has been introduced in the Arkansas legislature.

The bill which attempts to set up a consistent standard of identity that can be adopted uniformly by other state legislatures, and eventually by the federal government, has the backing of the National Cotton Council of America and the American Soybean Association through its vice president, Jake Hartz, Jr. Hartz attended a strategy meeting at Little Rock, Ark., Feb. 25.

Mellorine, a comparatively new product, is at present being sold mainly in the states of Texas, Oklahoma, Missouri and Illinois, where its sale is legal. It is not ice cream, but a pure nutritious food containing edible hydrogenated soybean or cottonseed oil.

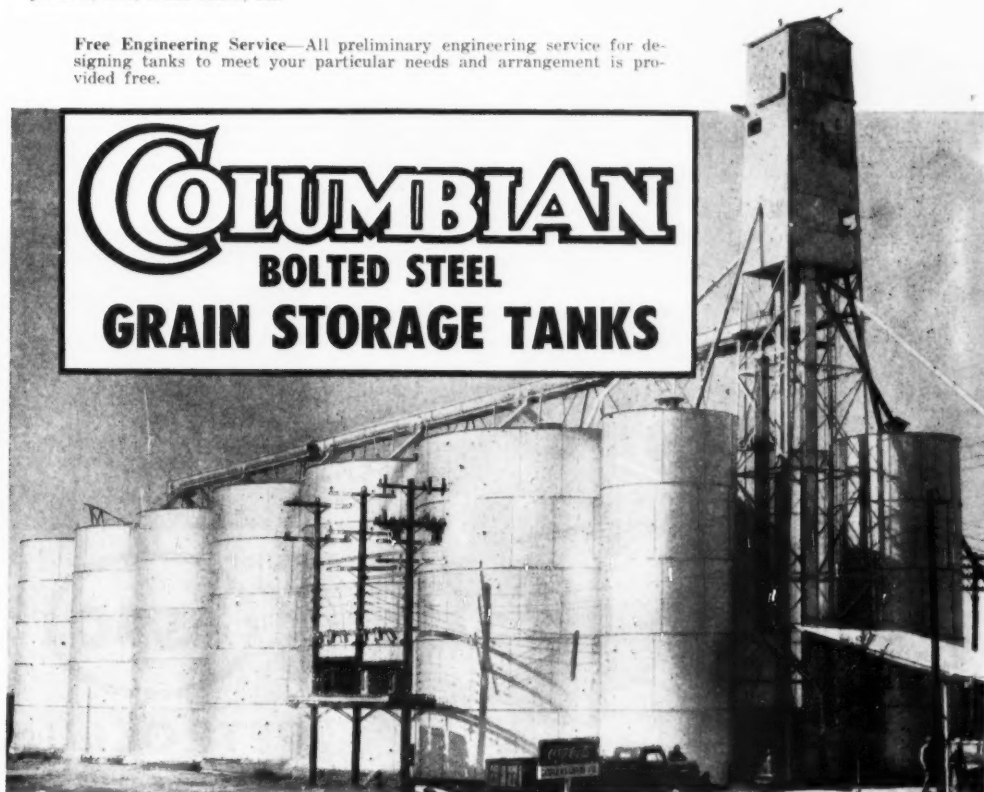
Our cover picture this time features a little girl with some delicious dishes of Mellorine. See the article by E. M. Deck on page 14.

8 Ways to **SAVE MONEY**

Specify **COLUMBIAN** and get

- 1 Minimum original investment—minimum overhead and maintenance.
- 2 Low cost erection due to their bolted sectional construction.
- 3 Fire-proof, weather-proof, rodent-proof.
- 4 Never crack or crumble—no caulking or patching required.
- 5 Actual service tests as long as 30 years prove them ideal for safe, efficient storage and handling of all small grains—wheat, corn, oats, barley, soya beans, flax, cotton seeds, peanuts, rice, coffee beans, etc.
- 6 Last years on end—none have ever worn out—not one has been demolished by tornado or cyclone.
- 7 Colombian's exclusive and important details of design continue to make these tanks superior leaders. Users invariably specify "COLUMBIAN" when additional storage is needed at their plant.
- 8 Easy way to erect, with detailed, easy-to-understand blueprints furnished so that tanks may be put up with any kind of labor—or we will provide supervisor for your own men—or a complete Colombian erection crew. Foundation specifications and blueprints are furnished to enable your local concrete contractor to build foundation.

Free Engineering Service—All preliminary engineering service for designing tanks to meet your particular needs and arrangement is provided free.



WRITE NOW for Free Literature — Send us your specifications including capacity required, arrangement of tanks, etc., and we will send you complete information.

COLUMBIAN STEEL TANK CO., P. O. Box 4048-U, Kansas City, Mo.

Associate Member of the Grain and Feed Dealers National Association



Trade Mark
Reg. U. S.
Pat. Office



*With
Esso
Hexane
multi-storage availability
is assured too!*

STORAGE FACILITIES and WATER TERMINALS in industrial centers give added convenience to the users of Esso Hexane. Shipments are made to meet users' requirements... by tank cars, tank trucks or drums. Specify Esso Hexane for dependable, convenient delivery right to your door!

You get all 6 of these important features with Esso Hexane

- 1. MULTI-STORAGE AVAILABILITY** — water terminals in industrial centers.
- 2. UNIFORMITY** — made in modern refineries from carefully selected crude oil sources.
- 3. HIGH OIL RECOVERY** — results from "balanced solvency." Recovered oil has good color and refining properties.
- 4. EFFICIENT SOLVENT RECOVERY** — narrow boiling range allows complete removal from extracted oil and meal.
- 5. PURITY** — high purity helps prevent non-recoverable residues. Low non-volatile content (specification limits non-volatile content to 28 parts per million maximum).
- 6. MODERN HANDLING METHODS** — separate tank storage, pumping lines, tank cars and trucks, are used in all Esso Solvent handling operations.

**Esso Solvents:
versatility and
dependability
with controlled
high quality.**



**PETROLEUM
SOLVENTS**

SOLD IN: Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Md., D. C., Va., W. Va., N. C., S. C., Tenn., Ark., La.

ESSO STANDARD OIL COMPANY
Boston, Mass. — New York, N. Y. — Elizabeth, N. J.
Philadelphia, Pa. — Baltimore, Md. — Richmond, Va.
Charleston, W. Va. — Charlotte, N. C. — Columbia, S. C.
Memphis, Tenn. — New Orleans, La.

SOYBEAN DIGEST

Late News

Published 32 times
yearly as a service
to the soybean
industry.

Hudson, Iowa, Mar. 10, 1953

OUTLOOK

Our reports continue to show about one-third of soybean processors operating at capacity, most of them solvent plants, with many Expeller plants down. The balance are operating at 50 to 75 percent. **Some processors are shutting down as they run out of beans.** Reason given is that operations just aren't profitable at present prices.

But low processor stocks coupled with an active demand for export makes the outlook for beans rather good. Observers still say it will take \$3 at the elevator to make for an active trade in the country.

LOANS

Recent price declines apparently prompted a heavier movement of soybeans under government loan, but probably not enough to be a major market factor.

SOYBEAN OIL MEAL

The supply lines of soybean oil meal are also about empty, but production is enough to take care of demand, we are told. Meal could again become scarce in late summer. But the government's holdings of cottonseed meal and its disposition to sell at market prices should prevent any sharp advance in meal prices until this surplus is disposed of. **Commodity Credit Corp. has to move its meal into trade channels before hot weather.** (See Washington Digest on page 38 for details.)

FATS AND OILS

The government's announcement that it will support dairy products at 90 percent of parity helped to strengthen fats and oils markets. On the basis of this action it is believed that **USDA will continue a 90-percent-of-parity support on cottonseed for the next crop,** as recommended by Agriculture Secretary Benson's cottonseed advisory committee.

1953 ACREAGE

"Will not be surprised if there is a very slight decrease in soybean acreage in 1953 for the largest producing states," says J. E. Johnson, Champaign, Ill., farm manager. "This should be offset by larger acreages in the states recently starting to grow soybeans in larger acreages." **Our correspondents continue slightly bearish on the outlook for 1953 acreage.** They predict lower acreage in Illinois, Kentucky, Arkansas and Tennessee, with Iowa and Nebraska about the same. Minnesota and Missouri should be up.

EXPORTS

An informed guess is that exports will continue heavy over the next several months, with part in the form of soybean oil. With the olive crop in southern European countries down to 30 to 70 percent of normal they will need U. S. soybean oil to finish out their year. It is said Japan will be in the market for several million bushels of beans in the next few months. **Export trade has picked up most beans in extreme southern U. S. and must now move north for supplies.** This will increase competition for beans in northern areas.



LAWS ON MELLORINE

Move to repeal state bans on manufacture and sale of Mellorine (vegetable oil frozen desserts) met with prompt success in the Arkansas State Senate Feb. 26, when SB-368 was unanimously passed. Early action is expected in the House. **Jake Hartz, Jr., vice president of the American Soybean Association, presented testimony in favor** at hearing before the Senate public health committee. The Louisiana attorney general has ruled that under existing state laws Mellorine can now be manufactured and sold in that state. (For more details on this new product see pages 6 and 14.)

YELLOW MARGARINE

The governor of South Dakota has allowed the bill legalizing sale of yellow margarine to become law in that state without his signature. **This leaves Iowa, Minnesota and Wisconsin as the only white states** with chances for action favorable in Iowa. (For earlier details see page 6.)

INDUSTRY CONFERENCE

ASA Secretary-Treasurer Geo. M. Strayer attended an industry-wide conference on soybeans and flax called by Agriculture Secretary Benson in Washington Mar. 9. **Meeting was called to consider the soybean and flax situation**, with Benson seeking advice on possible measures to stabilize prices and production.

PROCESSING TAX

A new attempt is being made to repeal the processing tax on coconut oil and copra imported from the Philippine Islands. Effect of this would be to knock 2 cents off the prices of soybean and cottonseed oils. See Geo. M. Strayer's editorial on page 4 on the probable effects of the removal of this tax. Then let your congressman know you want the tax retained.

SEED GERMINATION

Germination of soybean seed is off in many areas. You will find a complete report on page 12. **But our reports indicate there is enough good seed most places to get the crop in.** Make sure you have good seed.

Cash Price to Farmers for No. 2 Soybeans Mar. 2

Ark.	\$2.75 @ \$2.81
Ill.	2.80 @ 2.86
Iowa	2.70 @ 2.75
Ky.	2.75
Minn.	2.67 @ 2.69
Miss.	2.70
Ohio	2.80
Tenn.	2.75 @ 2.81

Retail Cash Price Bagged Soybean Oil Meal Mar. 2

Ill.	\$ 84 @ \$ 90
Iowa	84 @ 93
Ky.	80 @ 84
Minn.	77.50 @ 79.25
Miss.	83
Ohio	100
Tenn.	78 @ 80

AMERICAN SOYBEAN ASSOCIATION

Hudson, Iowa

Attached find my check for \$7.50. Please send me LATE NEWS for one year (80 times outside the Soybean Digest.) I am a member.

Name

Firm

Address

City Zone State



To receive LATE NEWS 32 times during the coming year just clip and fill out the coupon and mail today with your check.

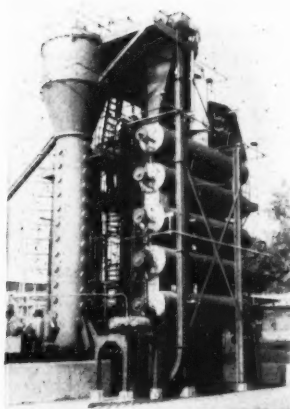


Why do you rely on Anderson for **SOLVENT EXTRACTION EQUIPMENT?**

*Because they have a
background of
53 YEARS EXPERIENCE
in solving difficult
oil milling problems!*



● Experience is a great teacher. Particularly when you are working with problems as difficult as those confronting oil millers. It's important when buying extraction equipment to deal with a company that has a wealth of background in helping oil millers solve their extraction problems. The V. D. Anderson Company has not only made solvent plants for a number of years, but prior to that for nearly half a century has been closely allied with the oil milling industry in the production of Expellers and auxiliary equipment. From this experience, we have gained a wealth of knowledge and understanding of the relationship of the solvent plant to the miller's over-all operation . . . the importance of producing quality oil and meal that's readily marketable . . . the attention to little details that make for successful operation. Place your new solvent plant on a solid foundation. Consult with the company whose long experience gives them the proper basis to help solve your own complex oil milling problem.



Anderson Solvent Extraction Unit

THE V. D. ANDERSON COMPANY

1976 West 96th Street • Cleveland 2, Ohio

ANDERSON

***EXPELLERS • SOLVENT EXTRACTION**

***EXSOLEX**



WORLD'S LARGEST SUPPLIERS OF EXTRACTION EQUIPMENT
MARCH, 1953

GROWERS

Break U.S. Yield Record

The national soybean yield record goes to Iowa this year for the first time. Adolph and Henry Molgaard of Bouton won the 1952 Iowa Master Soybean Growers Contest and set a new national record in doing so.

Their yield of 62.5 bushels per acre is the first to surpass the 61.5 bushels of George Shell of Indiana made in winning that state's contest in 1949.

The Molgaards grew the Adams variety, on a Webster clay loam. They applied four to five tons of barnyard manure to the acre, and inoculated the seed. Fertilizer had been applied to the corn crop preceding.

The Molgaards plowed the land early, disked and harrowed it before planting.

The Iowa champions made two plantings of one bushel each on the same land. They drilled the first planting in 40-inch rows on May 12. The second planting on June 3 straddled the first rows, which by then were about three inches high.

During the time between the two plantings the field was rotary hoed twice and cultivated once. Weeds were no problem after the second planting.

It's Steele in Illinois

Verle L. Steele, Table Grove, Ill., was winner of the 1952 Illinois 10-Acre Soybean Growing Contest, with a yield of 50.92 bushels per acre and a total score of 93.86.

The field on which Steele grew his



TROPHY WINNER A. F. Stephens, general agricultural agent, Gulf, Mobile & Ohio Railroad Co., (left), and Mr. and Mrs. Fred W. Bergmann, Trenton, Ill. Bergmann, third place winner in the Illinois 10-Acre Soybean Growing Contest, was first in GM & O territory and winner of the rotating trophy.

contest beans had been limed and phosphated and was plowed last spring to a depth of six inches. He harrowed the field once and the beans were planted May 22 in 32-inch rows at a rate of 50 pounds per acre. His variety was Adams. His beans ranked first in quality.

Steele was state champion in 1946, and had been second place winner twice since.

Second place winners were Betty Lou and Nancy Lee Bonwell, Chrisman. Their total score was 93.59. Their cost of production, \$122.79 for the 10 acres, was lowest of any of the contestants.

Third place winner was Fred W. Bergmann, Trenton, with a score of 92.13. He tied with Wayne A. Coffee & Sons, Kansas, for the highest oil content, 22.1 percent.

Bergmann also won the rotating trophy awarded each year by the Gulf, Mobile & Ohio Railroad Co. to the grower from the 29 counties in GM & O territory who placed highest in the Illinois contest.

Bergmann's field had been limed and phosphated, and was plowed in April to a depth of six inches. The field was harrowed twice prior to planting on May 21 at a rate of 40

State 2-0350
Teletype CG283

New York
Memphis
Dallas
San Francisco

Zimmerman Alderson Carr Company

Chicago

BROKERS TO THE SOYBEAN PROCESSOR

pounds per acre in 40-inch rows. He used Perry.

L. Parke Kerbaugh, Stanford, had the highest yield in the contest, 51.33 bushels per acre, but his total score was fourth. He ranked second in GM & O territory. He had limed his field and it was plowed in the spring before planting on May 15 in 21-inch rows at the rate of one bushel per acre. He grew Adams.

H. L. Stiegelmeier, Normal, ranked third in GM & O territory. His field had been limed, phosphated and plowed eight inches deep last spring. He harrowed the field twice before planting May 16 at the rate of 45 pounds per acre in 40-inch rows. He grew Adams.

Missouri Seed Show

Earl Christiansen, Archie, Mo., was first place winner with a display of yellow soybeans at the 47th annual Missouri Good Seed Show held recently at Carthage, Mo.

Christiansen entered a peck of the Blackhawk variety. It had 99.99 percent pure seed, .01 inert and 94 percent germination with no weeds or other crop seeds. He won the championship trophy awarded by Scott County Mill, Sikeston, Mo.

There were 60 soybean entries in the show which is sponsored by the Missouri Seed Improvement Association.

Those winning premiums in the three classes of soybeans:

Yellow soybeans: 1—Earl Christiansen, Archie; 2—Bert Kleeman, Golden City; 3—G. W. Fidler, Carthage; 4—B. L. Mays & Son, Lilbourn; 5—M. E. Clayburg, Hamden; 6—Juan Potter, Carthage; 7—Ernest Forste, Carthage; 8—Walter Rush & Son, Jasper; 9—Morton Tuttle & Sons, Prairie Home; 10—Fred Moser, Sikeston.

Green soybeans: 1—John W. Elington, Portageville; 2—Earl M. Coppage, Braggodocio; 3—Vincent Hulshof, Portageville; 4—Larry Harris, Sikeston; 5—W. L. Davidson, Kennett; 6—O. A. Knight, Portageville.

Other soybeans: 3 — Lorene Moore, Portageville.

Varieties entered in the yellow class were predominantly Perry, Wabash, S-100 and Lincoln. The soybeans in the green class were all Ogden.

UNTREATED SOYBEAN



the difference is ...

TREATED



Spergon

the seed protectant

Read what agricultural authorities report:

FROM MINNESOTA—Spergon has consistently improved soybean germination and stand.

FROM DELAWARE—Spergon increased soybean plant weight 17.6% ... bean weight 53.5%.

FROM MISSISSIPPI—16 soybean varieties averaged 16% greater stands...3.1 bu./acre increase with Spergon.

Advise local supplier of your needs beforehand to insure availability. For free "seed protectant" Bulletin #1, write to:



UNITED STATES RUBBER COMPANY

Naugatuck Chemical Division, Naugatuck, Connecticut

producers of seed protectants, fungicides, miticides, insecticides, growth retardants, herbicides; Spergon, Phygon, Aramite, Synklor, MH, Alanap.

Much Low Germinating Seed!

**The condition is widespread. Be sure you
plant only tested seed.**

Tests of 1952-crop soybean seed indicate poor germination over wide areas, according to reports coming to the Soybean Digest. Some seed is germinating far too low for satisfactory planting.

The apparent cause in most cases was mechanical injury of extremely dry seed at harvest time, which occurred in drought areas. There was also some damage by early frosts to late maturing varieties in the Mid-south.

There is much good seed also, but there is enough bad seed to indicate that testing all seed well in advance of planting time is even more important this year than usual. And in some cases other steps will have to be taken to insure a good stand.

Low Reports

Illinois, Arkansas, Missouri and Tennessee are states with low germination reports. Iowa, Indiana and Ohio are better, though seed is germinating below normal in Iowa and Indiana.

In Illinois more than two-thirds of the soybeans harvested for seed are germinating below 90 percent, according to W. O. Scott, University of Illinois agronomist. A fourth is germinating below 80 percent. Certification requirements on the 1952 crop have been lowered from 90 percent

germination to 80 percent in order to keep about three-fourths of the inspected seed eligible to carry the blue certified seed tag.

In Indiana 6 percent of the seed samples tested have been germinating under 80 percent. But there is also plenty of high-germinating seed in Indiana.

The Arkansas State Plant Board reports as high as 20 percent abnormal seedlings in tested samples, apparently due to mechanical injury. Some seed tested as low as 8 to 9 percent moisture at harvest. The Board also reports that an early freeze caught late varieties before they were completely mature and germination was affected greatly. Recent tests on some of this late variety seed have shown a range of from 54 to 65 percent.

The Arkansas Plant Board has lowered minimum germination requirements on the 1952 crop to 70 percent.

In Iowa seed is showing lower germination than is usually true for a season of normal rainfall, according to C. R. Weber of Iowa State College.

Missouri reports show very poor germination in that state. Crops men at the University say of 125 individual tests made on seed in December, 85 percent tested less than 80 per-

cent, and 40 percent of them tested less than 70 percent.

Some Good Reports

On the other hand, Dr. E. E. Hartwig of the Delta Branch Experiment Station, Stoneville, Miss., says tests of seed produced at the Station have shown good germination, from 86 to 90 percent.

Ohio seed is germinating about normal, according to Lewis Saboe of Ohio State University.

Observers are generally agreed that mechanical injury at harvest time was the cause of most of the trouble. In many areas seed tested 8 to 10 percent moisture when combining. The extremely dry beans apparently were jarred enough by the combine so seedcoats were cracked or embryos were broken loose.

What is the remedy for the situation?

Above all, plant only seed that has been tested for germination. If you are planting your own seed be sure to test it well before planting.

An easy and reliable check can be run by putting 100 seeds per sample in a box of dirt or sand, keeping them moist and at room temperature, and counting the sprouts. Or take your seed to a commercial tester at local elevator or seed store. Or send

Crude and Refined Vegetable Oils - Soy Oil, Corn Oil, Cottonseed Oil

Daily Market Letters to Our Customers Supplement Our Personal Service

PHONE, WIRE, OR WRITE,

ROESLING, MONROE & CO.

4140 Bd. of Trade Bldg., Chicago 4, Ill. Ph.: Harrison 7-5244

CARL H. SMITH

GEO. K. DAHLIN

BROKERS

HUGH B. ELLSWORTH

SOYBEAN DIGEST

samples to your state seed testing laboratory for testing.

Plant high germinating seed if possible. If it is necessary to plant seed on which germination tests are low, increase the rate of planting to make up for lower germination.

Missouri crops men are recommending that you plant at a 25 to 30 percent higher rate to make up for poor germination in that state.

Use Protectant

And it may pay you to use a seed disinfectant or protectant on seed that has sustained mechanical damage. Under such conditions seed treatment may result in higher germination and yield at a low cost.

The general recommendation is to treat seed when:

- 1—Germination is below 85 percent.
- 2—Seed has purple stain disease.
- 3—Seed coats are damaged or thin.
- 4—When you are faced with cold wet planting weather.

Indiana agronomists recommend treating seed only when it is necessary to plant poor quality seed or to stretch a small quantity of seed. They say that anyone who is having trouble in getting a stand for any reason could well treat his seed.

M. F. Kernkamp, University of Minnesota pathologist, says tests at the University have failed to increase yields under ordinary field conditions by using seed treatment. But he does recommend seed treatment under some conditions. "If one has mechanically injured seed or seed that is badly weathered and moldy, or if one has particularly valuable seed, as most certified seed growers do, seed treatment is recommended without reservation."

When germination is low, seed treatment usually gives beneficial results in the Stoneville, Miss., area, according to Hartwig. "However, when germination is low, the germinating seedlings are frequently weak," Hartwig says. "When seedlings are weak, they will not come through after a hard, packing rain as well as stronger seedlings do. A grower might stand a greater risk of having to replant than if he were planting seed which would give strong, vigorous seedlings."

Purple stain disease can be con-

trolled by treatment with seed disinfectant. It affects seeds, pods, stems and leaves, but is most easily recognized as a pink or purple stain on the seed coat. Treatment of seed infected with this disease increases stands and yields.

* * * *

It must be remembered that seed treatment and inoculants are not completely compatible. Treatment under some conditions may decrease the value of inoculation. Where seed is to be both treated and inoculated, be sure to plant the seed *immediately* after inoculating for best results.

Inoculation is considered to be the more valuable—under normal conditions at least—in the central Cornbelt. North and south of this area more stress is given to seed treatment. In the South in particular, seed is affected by fungi that at times make it almost impossible to carry viable seed over winter. Here seed treatment is often of real help.

W. M. Scott, Tallulah, La., producer, reports treating 1951-crop soybeans soon after harvest. These

HOW TO HANDLE YOUR SOYBEAN SEED

1—Plant only seed tested for germination, and high-germination seed if possible.

2—If necessary to plant seed of lower germination increase rate of plant.

3—Use a seed disinfectant or protectant if seed germinates less than 85 percent or if the seed coats are damaged.

soybeans germinated 98 percent, though the same seed, untreated, tested almost 10 percent lower.

Scott planted some of this same seed, of the Dortchsoy No. 2 variety, after it was two years old and got a good stand from it, an unusual feat in Louisiana.

He says that his seed when treated will germinate as well or better than seed from any section of the country.

INOCULATE SOY BEANS

with



IT PAYS

The Urbana Laboratories
Urbana, Illinois

ANOTHER OUTLET

for vegetable oils from American farms

Mellorine, a nutritious new product made with soybean and cottonseed oils, can become another major market after clarifying legal action.

By E. M. DECK

Manager, Products Service Department, Mrs. Tucker's Foods, Inc., Sherman, Tex.

THE ANNUAL production of ice cream in the United States is approximately 600 million gallons, which is equivalent to about 270 million pounds of butterfat. This 270 million pounds of butterfat is said to be somewhat less than 10 percent of the total butterfat produced in the United States.

In the last four or five years the price of butterfat has been high and in some areas, this high price seemed to be pricing good quality ice creams out of the market. Many families were not able to pay the high price necessary for ice cream or they felt they were getting more for their money by purchasing other foods.

Ice cream manufacturers began to look around for some means of holding their business. Some tried low-butterfat ice creams, where their state laws would allow it. Others tried ice-milk products and others tried frozen novelties, others frozen custards and some tried to push the sale of sherbets. None of the products seemed to fill the bill.

Started in Texas

In Texas, along about 1917-18, a few ice cream manufacturers started to make frozen desserts using hydrogenated vegetable fats (soybean and cottonseed oils) to replace the butterfat in their ice cream mix formulas. This was not a new invention at all, because some vegetable fat had been used during the war, and vegetable fat ice creams have been made for years in other countries, such as England.

The use of vegetable fats in ice cream or in any product resembling ice cream has been illegal in interstate commerce in the United States and in many of the states. In some states the laws are not too strict on this point, so the vegetable fat frozen desserts got started under such names as "Frosty Kreme," "Mello Kream," etc.

This new food product met with such ready acceptance by the consuming public, both as to quality and as to price, which was lower than ice cream, that many other ice cream manufacturers started to make it. The legality was challenged, but there seemed to be no legal reason that this new food product could not be made and sold as long as it was properly labeled and sold for what it really was.

The Texas Dairy Products Institute then got busy and wrote a standard of identity for this vegetable fat frozen dessert and gave it the generic name of "Mellorine." This definition of standard was passed by the Texas State Board of Health and today Mellorine is legal in the state of Texas. The Mellorine standard is very similar to the Texas state ice cream standard, except the minimum fat content of Mellorine is 6 percent while the minimum butterfat content of ice cream is 8 percent.

Oklahoma has set up a standard of definition for Mellorine very similar to the Texas standard. Arkansas is in the process, as are many other states, of setting up a standard of identity for vegetable fat frozen desserts. At present, it looks as though

the generic name of "Mellorine" will be used by most states and probably will be used in federal standards, if and when, they are set up.

Not Prohibited Here

Missouri and Illinois apparently have no laws prohibiting the manufacture and sale of vegetable fat frozen desserts. The past two years have seen a rapid growth of the production of Mellorine-type products in Missouri and Illinois, following much the same pattern as in Oklahoma and Texas. The large national manufacturers such as National Dairies, Borden, Carnation, Foremost, Beatrice Foods, and others as well as the independent ice cream manufacturers are now making this new food product in the states where it has been legalized or where it is not prohibited.

The indications are that many states will legalize the Mellorine-type products this year and that within the next few years a federal standard of identity will probably be set up.

Mellorine is made the same as ice cream, except the butterfat is replaced by other edible fats. When vitamins A and D are added, as they are in margarine, Mellorine has the same nutritive value as ice cream and it is a good wholesome new food product. When properly made, it is very difficult if not impossible, for the consumer to tell it from ice cream.

The vegetable fats used in Mellorine or frozen desserts cost 18 to 25 cents per pound as compared to butterfat at 30 cents to \$1.15 per pound.

The Mellorine has been retailing at 69 to 89 cents per half gallon as compared to ice cream at 90 cents to \$1.25 per half gallon.

Some ice cream manufacturers tried to sell 6 percent butterfat ice cream or ice-milk against a 10 percent vegetable fat Mellorine. In nearly all cases this proved unsuccessful because a 10 percent vegetable fat Mellorine has an eating quality like a 10 percent butterfat ice cream, which in both cases, is much better than a 6 percent butterfat ice cream or ice-milk product.

The consensus of thinking of ice cream manufacturers is that the new food product, Mellorine, is here to stay and it will give them another product to add to their line. They do not want this product to go to some other group as was the case with margarine. For this reason, the ice cream manufacturers are trying to get standards of identity set up so they can make it in their present plants where they already have all the necessary equipment and facilities for making and merchandising Mellorine for what it is—a new food product and not ice cream.

Meaning for American Farmer

So far, two types of fats have been sold to the Mellorine manufacturers. One is the coconut oil group, or imported fat. This fat has been used straight and blended with hydrogenated soybean and/or cottonseed oil. There are a lot of pros and cons on the use of coconut oil, but it appears likely it will follow the same cycle it did in margarine.

Originally, animal fats were used in margarine. Then later, coconut oil was used by practically every margarine manufacturer. Along in the mid-30's, hydrogenated cottonseed oil was developed for use in margarine. It produced a better margarine than coconut oil and today practically all margarine is made from hydrogenated soybean and/or cottonseed oil. There is a greater production of soybean oil than cottonseed oil in the United States today. New processing methods have made hydrogenated soybean oil interchangeable with hydrogenated cottonseed oil. In margarine, which competes directly with butter, there is more hydrogenated soybean oil used than hydrogenated cottonseed oil.

The hydrogenated soybean and/or cottonseed oils are doing such a

good job in margarine that even when coconut oil is lower in price, as it frequently is, there is no tendency for margarine manufacturers to go back to the use of coconut oil.

While some coconut oil is being used now by Mellorine manufacturers, the indications are that once they get through the experimental and exploratory stage, they will settle down on hydrogenated soybean and/or cottonseed oil (both products of American farms) as the best fat for Mellorine. This is already the case with those who have been making Mellorine for two years or more.

In Mellorine, hydrogenated soybean and/or hydrogenated cottonseed oil produce a product with melt down characteristics, eating qualities, and resistance to heat shock much more like that obtained with butterfat than is obtained with coconut oil in Mellorine. In addition, the plastic hydrogenated soybean and/or cottonseed oil products are much more convenient to handle and store than the coconut oil products.

The manufacturers of Mellorine, if they continue to advertise and promote their ice cream, will usually hold their current ice cream business and the Mellorine will be new or extra business. In cases where most of their promotion goes on the Mellorine product, their ice cream business usually suffers at the expense of Mellorine, but the over-all total sales increase.

This year approximately 270 million pounds of butterfat were used in ice cream. An increase of only 10 percent in business due to Mellorine would mean 27 million pounds of hydrogenated vegetable fat (soybean and/or cottonseed) consumed each year. The increase in business due to Mellorine could easily be 30 to 50 percent requiring 80 to 130 million pounds of vegetable fat.

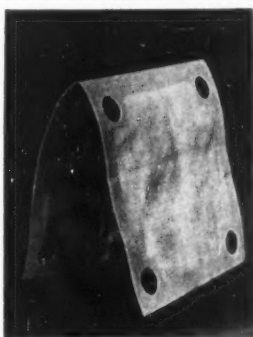
In Texas alone it has been estimated that 7 million gallons of Mellorine were made this year and this would be approximately 30 percent of the average production of ice cream and equivalent to about 3 million pounds of vegetable fat. These figures are estimates. By next year there will probably be Bureau of Census figures available on the production of Mellorine-type products.

The annual production of cottonseed and soybean oil for the past three crop years was, in millions of pounds:

Crop Year	(Estimated)		
	1950-51	1951-52	1952-53
Soybean Oil	2345	2391	2414
Cottonseed Oil	1636	1632	1546
Combined total	3975	4023	3954

If Mellorine replaced all ice cream and used 270 million pounds of hydrogenated soybean and/or cottonseed oil, it would require about 6 to 7 percent of the annual production of these oils.

If the production of Mellorine should reach an annual production of 30 to 50 percent of the annual pro-



Filter Cloths

- Die-cut with exact precision.
- Delivered, as pictured, to any schedule.
- No shrinkage. No large roll goods inventory.
- Less Shutdown time.

Send dimensions or press plate template and material specifications for free sample cloth.

Our 25th Year of Dependable Service to Processing and Refining Industries

FILTER *ff* FABRICS

Incorporated

704 Marion Bldg.

Cleveland 13, Ohio

duction of ice cream and use 30 to 130 million pounds of vegetable fat, it would require 2 to 3 percent of the annual production of these oils.

Mellorine also is a good outlet for the farmer's milk solids not fat. Milk solids not fat have been considered a byproduct of milk production and the price of milk to the farmer is based on the price of butterfat. It is entirely possible that increased demand for milk solids not fat for use in Mellorine could cause the price of liquid milk to be based as much on the solids not fat, as on the butterfat.

In other words, a Mellorine containing 10 percent vegetable fat would probably contain 10 to 12 percent milk solids not fat. In 1950, there were 881 million pounds of non-fat dry milk solids produced and 734 million pounds of skimmed condensed milk. If Mellorine develops as it looks like it will, to where it uses 30 to 130 million or more pounds of milk solids not fat, it will require a large percentage of the current supply of milk solids not fat.

A typical formula for Mellorine is as follows:

**TYPICAL MELLORINE FORMULA—
10% Vegetable Fat**

Ingredients	A Skimmed Condense (30% Solids)		B Non Fat Dry Milk Powder	Composition
	Lbs.	Lbs.		
Milk Product	400	120	12%	Serum Solids
Vegetable Fat	100	100	10%	Vegetable Fat
Sugar	120	120	12%	Sugar
Corn Syrup			5%	Corn Syrup Solids
Stabilizer*	50	50	4	0.4% Stabilizer
Emulsifier	optional	optional		
Vitamin A	optional	optional		
Flavor	optional	optional		
Water	326	606		
Total Weight	1000	1000		

*Stabilizer as recommended by manufacturer.

In conclusion, many of the farmers who grow soybeans and cotton are the same farmers who produce large quantities of milk. The growth of Mellorine production will create new outlets for their milk solids not fat as well as their vegetable oils. It may be that in the near future the price of fluid milk from the farmer will be based as much, if not more, on the milk solids not fat as it is on the butterfat content.

Mellorine can help the dairy farmer as well as the cotton and soybean growers because lower priced food products like Mellorine, which is both a wholesome and nutritious food product, will help get more of the consumer's dollar for these farmers.

NEW RULE ON FERTILIZER?

(Staff Written)

There's an old rule of thumb that applies to fertility practices on soybeans:

Apply the fertilizers to other crops in the rotation but not to soybeans.

Maybe it is time we were throwing this rule away and finding a better one.

J. E. Johnson, veteran farm manager of Champaign, Ill., who oversees 100 farms in the heart of the soy belt, sums up the common experience of soybean producers when he says that on his farms fertilizers have produced no benefits that have justified their cost in increasing soybean yields. "Our program is for soybeans to eat at the second table." That is, they will benefit from the fertilizers applied to corn or wheat in the rotation.

But on a subject so complicated as fertility practices there are exceptions to the rule.

1—The fact that soybeans do not respond as well as other crops to direct application of fertilizer has given rise to a mistaken idea that is hard to down even yet—that they are a poor land crop. They are often put on the land left over after corn or cotton or some other favored crop is taken care of. Not only are soybeans made to eat at the second table. They are often given poor fare when they get there. As a result, soybeans are not making the best returns on many farms.

You can't produce a good crop on poor soil. A high fertility level is as important for soybeans as other crops.

**If you take care
of the soil
the crops will take
care of themselves.**

2—Fertilizing the soybean crop has been paying in some areas, particularly in the South outside of the Mississippi Delta and other river valleys. Where soil fertility is low, fertilizers often bring about a large increase in soybean yields.

3—The use of fertilizers on soybeans pays where there are mineral deficiencies, such as potash or manganese in the soil. In fact, you may not be able to get a crop without them. F. D. Keim of the University of Nebraska says the addition of ferrous or manganese sulfate may mean the difference between a crop and no crop on the iron or manganese-deficient soils of Nebraska.

Depends on Fertility

Whether you can see results from fertilizers on the soybean crop seems to be closely tied to the fertility level of the soil. Myron M. Keim of the Virginia-Carolina Chemical Corp. suggests that if your beans are already producing 30 or more bushels per acre you may not be able to boost that yield through fertilizers. But if your yields are in the 20's, then you may.

But if we throw the old rule away, can we find a new one that is not equally full of holes? We believe we can.

Among soil men the idea is growing of fertilizing the soil and not the crop. Says A. L. Lang of the University of Illinois, "We do not follow a practice of crop fertilizer recommendations. Our recommendations are for the soil."

In other words, determine the needs of your soil through a soils test and then fertilize accordingly.

Should not the new rule be:

Fertilize according to the needs of your soil, not for the crop.

If you will take care of the soil the crops, including soybeans, will take care of themselves.

If a test shows your soil is lacking in certain elements you will want to

add them whether to soybeans or some other crop. After the fertility level is built up, then the only problem is to maintain it. This can be done by putting the fertilizer on the crop that will show the greatest direct return.

Needless to say, you have to return to the soil what soybeans and other crops take out, if you want to continue to get a crop. Commercial fertilizers are of course just one step in a soil fertility program that includes lime, clover, manure and crop residues.

Johnson says his highest soybean yields have come from farms where deep-rooted legumes and grasses have been a part of the cropping program. This is due to better tilth and fertility and also the fact that there is less disease, since fewer crops of soybeans have been grown on the land.

Keep Minds Open

Above all, we need to keep our minds wide open on the whole fertilizer question, and not take any rule too seriously. Myron Keim suggests that farmers who use fertilizers on soybeans leave small checks strips that they can observe throughout the season. This should help them decide what fertilizers work best on soybeans under their conditions.

Keim says he has seen outstanding responses from soybeans fertilized alongside the row. "While there may have been little or no difference in the final yield, I am certain that such fertilizer may have been most beneficial in helping the soybeans get off to a good start ahead of the weeds and also in hastening maturity."

Soybean seedlings are sensitive to direct applications of fertilizer. It is important that fertilizers be applied in bands on each side of the seed at least an inch away. Or they should be plowed down for best results.

Keim also suggests there may be marked differences in the way some of the new varieties of soybeans respond to high fertility levels just as has been reported of some of the new corn hybrids.

* * * *

Here are a few general recommendations for the various parts of the soy belt:

H. J. Mederski of the Ohio Agricultural Experiment Station at Wooster sums it up for the more fertile soils of Iowa, Illinois and Minnesota as well as Ohio when he states: "The

most profitable way to maintain soybean yields consists of applying liberal quantities of fertilizer to corn, small grains and meadow crops." The soybeans respond just as well to the fertilizer applied on other crops as they do when it is applied on soybeans.

Soybeans will respond very well to lime or potash where these materials are lacking in Cornbelt soils.

Mederski recommends 150 to 200 pounds of 0-20-20 where soybeans are to be fertilized directly for some special reason. And he says: "Liming of acid soils to a pH of about 6.5 almost always results in substantial soybean yield increases."

The Iowa station recommends spraying of iron-deficient, chlorotic soybeans growing on high-lime soils in north central Iowa with 20 pounds of ferrous sulphate per acre.

For Minnesota soils in a low state of fertility, an application of a phosphate-potash fertilizer has been effective, says C. O. Rost, chief of the division of soils, University of Minnesota. On more fertile soils fertilize the crop preceding soybeans.

Substantial increases in soybean yields on some of the less fertile soils of Indiana have been obtained through a fertilizer program, according to A. H. Probst of Purdue University and the U. S. Department of Agriculture. But the same general practices apply there as elsewhere in the Cornbelt: "Have the fertility levels of phosphate and potash in the soil built up to such a level that it does not require fertilization for soybeans. However, if smaller amounts of fertilizer are being added and the soils are low in either phosphate or potash, good yield increases can be obtained by the application of these in the row." We are quoting S. A. Barber of the Purdue department of agronomy.

There are some manganese-deficient soils in Indiana, particularly in northern Indiana. This may be remedied either with the addition of manganese sulphate in the fertilizer or by spray application to the plants.

No fertilizer of any kind is being recommended by the state experiment stations for Delta and river bottom lands of the South, according to D. A. Hinkle, head of the department of agronomy at the University of Arkansas. Outside of the river bottoms in the South soybeans will usually re-

spond to direct application of mixed fertilizers containing potash and phosphorus, Hinkle says.

A chlorotic condition in soybeans has been increasing in importance in the rice lands of Arkansas. This can be corrected with the use of a mixed potash-phosphorus fertilizer. Most Arkansas rice lands are low in phosphorus and potash and use of fertilizer on such soils may be a profitable step.

In the hill sections of Mississippi application of 30 to 40 pounds of phosphate per acre may be beneficial, according to the Mississippi Agricultural Experiment Station. On soils known to be low in potash 30 to 40 pounds of potash may be used. Highly acid soils will need to be limed for best results, in Mississippi as elsewhere.

Adding Nitrogen

Side dressing with nitrogen at the bud stage has been profitable on some Nebraska soils, according to Keim. At Lincoln 60 pounds of nitrogen increased the yield by seven and one-half bushels.

At the Ohio Station in four years of experiments side dress applications of nitrogen on nodulated soybeans have increased soybean yields but the yield increases have seldom been profitable.

SECOND. J. E. Johnson, Champaign, Ill., says his soy "eat at the second table." This photo is of the famous "mile of soybeans" field.





NEBRASKA BEANS. These soybeans averaged 31.6 bushels per acre on sandy soils in Pierce County, Nebr. The shelterbelt at the upper right helps control wind erosion.

SOYBEANS ON NEBRASKA SAND!

By **DONALD G. HANWAY**

Assistant Professor, Department of Agronomy,
University of Nebraska

Who would believe that a conservationist would plant soybeans in a conservation program on light sandy soils very subject to wind erosion? And who would believe that soybeans in this soil would yield more than 30 bushels per acre?

A belt of cultivated sandy soils which are acid, low in fertility and subject to severe wind erosion exists east of the Nebraska sandhills. Two years ago the Pierce County soil conservation district purchased a farm in this area and invited the research conservationists and agronomists at the University of Nebraska to utilize it for research on the erosion and fertility problems of the area. Demonstrations to show farmers the effects of suitable rotations, tillage methods, and fertility practices in raising the productivity of the soils occupy much of the farm.

The use of shelterbelts and plentiful stubble mulch associated with sub-tillage seems to be the solution to the wind erosion problem. The soil surface must not be left bare.

The use of lime and phosphate makes alfalfa and sweet clover production possible on this land where failure is certain when they are not added. Experiments and experience thus far indicate that other legumes may also be important in the future

agriculture of this area. Hairy vetch when planted and harvested with rye seems to be very well adapted and produces a spectacular increase in yields of subsequent corn crops. Partidge pea, a native legume, fits well into this stubble mulch system, reseeding itself and providing a type of residue that is effective in erosion control.

Desirability of some cash crop for the area other than corn led to the consideration of soybeans as a possibility. An exploratory planting in 1951 indicated some answers to cultural problems and was successful enough to encourage planting a larger acreage in 1952.

Shelterbelt Protection

Since the effectiveness of soybean residues in controlling wind erosion was not well known, a field well protected by shelterbelts was chosen. This field had at one time been a hog and sheep pasture planted intermittently to rye and corn. It had been uncropped for several years and had had no livestock on it for at least two years. It was plowed in the fall and again in May, treaded and skew treaded for packing and weed control ahead of planting inoculated seed May 30 at the rate of one bushel per acre.

Skew treading is accomplished

with what is essentially two rotary hoes pulled in reverse and set at opposing angles to the line of pull. The stand was nearly optimum in density and uniformity. A light skew treading at emergence followed by two cultivations gave good weed control. At the second cultivation a side dressing of ammonium nitrate was applied at the rate of 60 pounds per acre. This corresponded with the time when Blackhawk was starting to bloom and other varieties were budded.

Favorable growing conditions after a dry period in early June continued throughout the summer. Growth was excellent with most of the seven strains reaching a height of about 40 inches. All strains (Blackhawk, Hawkeye, Adams, and Lincoln were included) stood well until harvest. They all yielded essentially the same, the mean yield of the test being 31.6 bushels per acre. Adequate residues to prevent serious wind erosion were produced.

After combining on Oct. 9, the field was skew treated to scatter the residues and drilled to rye. Since Blackhawk was ready to combine Sept. 26, seeding could have been moved ahead two weeks if this variety alone had been used. Early-planted rye would be more effective for controlling wind erosion.

Was Hog Pasture

Two factors may affect the general reproducibility of these results. One is the effect of a high water table which was only about one foot below the surface at planting time in a part of the test field. This receded to a depth of five or six feet at harvest time. Because of the favorable distribution and adequacy of rainfall throughout the summer, it is thought that similar yields could probably have been attained in the absence of the high water table.

The other is the fertility level in this old hog pasture which could have been much greater than that of the average fields of the area. It is thought that the use of more fertilizer on less fertile fields could possibly balance the effects of this factor. A fertilizer test in this field showed no significant response of soybean yields to any rate of application of phosphate, nitrogen, or sulfur fertilizers. Addition of another 60 pounds of ammonium nitrate had been planned at a third cultivation, but growth was too rank to allow implements in the field.

More extensive plantings of soybeans will be made on this farm in 1953 and also by some farmers in the area. Proper tillage and fertilizer practices would appear to be two keys to making soybeans fulfill the need for a second cash crop in this area. But it must not be overlooked that the future of the crop depends on learning how to handle it so as to eliminate any wind erosion hazard. General success in 1953 may lead to the establishment of a considerable soybean acreage in this area.

— s b d —

23 MILLION MEALS OF MULTIPURPOSE FOOD

Nearly 23 million 3-cent meals of the "Multi-Purpose" food have been distributed on the hunger fronts of the world, according to a report issued by the non-profit Meals for Millions Foundation, Los Angeles.

The food was developed by Dr. Henry Borsook at the California Institute of Technology in 1945. Soybeans are a basic ingredient.

More than 14 million meals, the report states, have gone to feed Korean refugees (813,000 meals since last June). Shipments to India total 3,830,000 meals of which nearly a million have been shipped since June. Popularity of the food has been enhanced by development of special native recipes printed in the Korean and Tamil languages.

Significant shipments have gone to the Middle East, Hong Kong, Formosa, Burma, Africa, Arabia, Japan, Philippines, Latin America, Europe, and Caribbean and South Pacific Islands.

World-wide distribution has been through 133 American relief and religious agencies and health departments of foreign governments.

Foundation distribution through relief agencies of the low-cost, high-protein food, fortified with essential minerals and vitamins, is chiefly financed through gifts from churches, school children, clubs, unions, civic organizations and the general public through fund-raising projects whereby "3 cents buys a meal for a hungry unseen guest."

For further information or to make contributions contact Meals for Millions Foundation, 648 South Broadway, Los Angeles 14, Calif.

LARGER SOY ACREAGE PLANTED IN BRAZIL

The Porto Alegre Consulate in Brazil estimates that Rio Grande do Sul planted about 173,000 acres of soybeans in September and October for the 1953 harvest, according to the Foreign Agriculture Circular of the U. S. Department of Agriculture. This compares with the official estimate of 145,950 acres planted in 1951 and 34,950 acres in 1950.

The area planted to soybeans in 1951 (for 1952 harvest) in Sao Paulo was reported at 3,090 acres, a 22 percent drop from the 3,950 acres planted in the previous year. However, this season one of the largest oil-seed crushers in Sao Paulo is carrying on a campaign to increase soybean production in Sao Paulo. This campaign should bring about a marked increase in the area.

The 1952 soybean harvest in Rio Grande do Sul is now estimated at 71,600 tons as compared with the revised estimate of the 1951 harvest of 67,240 tons. The reduction in the 1952 harvest estimates reflects the unseasonal dry weather during the growing season last year. Soybeans are planted in Rio Grande do Sul

in September and harvested in May and June.

The weather in the 1952-53 season was favorable for the planting of the crop. It is reported new plantings were made in the southwestern part of the state which in the past has been used almost exclusively for cattle.

The Porto Alegre Consulate reports that because of present high corn prices some farmers prefer to sell corn and use their soybeans for animal feed. The domestic consumption of soybeans also has been increased by the increased capacity of oil mills. The Consulate believes, therefore, a smaller proportion of the crop will be exported this year than in the previous seasons.

Exports of soybeans from Brazil in 1951-52 were reported at 51,367 tons which indicates that probably 15,370 tons of the 1951 harvest were consumed in Brazil.

There has been a steady export demand for soybeans but the export trade may face difficulty in selling soybeans abroad this year as minimum government support prices have been increased from \$2.13 to \$3.33 per bushel.

Drier at North Little Rock, Ark.



Photo by Pellett of Soybean Digest.

ARKANSAS STORAGE. North Little Rock Drier & Storage Co., North Little Rock, Ark., stores and also has a drying service for rice, wheat and soybeans. The firm has 165,000 bushels storage and an 8,000-bushel daily drying capacity, with a LSU drier designed by Louisiana State University. Proper conditioning of crops and especially seeds for storage is a big problem in Arkansas and drying equipment is becoming common. You see C. A. Thompson, office manager, left, and H. L. Capps, plant manager, right, talking to Ashleigh P. Boles, agricultural director for the Missouri Pacific Railroad.

Soy Flour and Milk Powder in Europe

By W. BENING

II

Germany has made great contributions to soybean processing. It was in Germany that the solvent extraction process was invented for separating the oil from the protein.

Japan sent the first Manchurian soybeans to Europe in 1905. Germany and England used the bean to satisfy the increasing demand for fat.

A great business in fats and oils absorbed all interests and activities of science and trade. It happened that the soybean, the old protein-producer of the Far East, was here treated merely as an oilseed. The protein was neglected. It was sold as animal feed only. The oil price was high enough to justify this neglect.

Two oil mills in Hamburg-Harburg, Hansa-Mühle and Brinckmann & Mergel, had independently—and almost simultaneously—invented the continuous solvent extraction process for oilseeds. After World War I Hansa-Mühle entered into close cooperation with *Geheimrat Rubener*, an outstanding German nutritionist.

Rubener was among the first to recognize that protein is essential in the diet. He pointed out that different proteins have different values, that grain protein needs fortification with other high-value proteins, that soy flour is one of the cheapest and richest sources of those amino acids in which grain proteins are deficient.

Hansa-Mühle was the first in Germany to actually promote protein enrichment of bread with soy flour in the meat-and-milk-deficient years fol-



RUMANIAN soybean field. North Basarabia, 1938.

Second of three articles by the well-known

German soya scientist describing the efforts

to meet dietary shortages with soybeans.

lowing World War I. But the emergency was over sooner than anticipated. The new enriched *Rubener bread* did not have sufficient time to win over the consumers.

Incidentally, the soy flour used in this first attempt was excellent though perhaps not as highly developed as present types. The solvent used was the best of that time, though not yet hexane. Deodorization was highly developed but perhaps not quite what we are now used to.

* * * *

The use of full-fat soy products is another method to adapt the extraordinary protein value of the bean to European eating and cooking habits. Vienna and Hamburg and other places in England and France became the center of this development. The products are made from dehulled but not defatted soybeans. The combined heat and moisture treatment removes the disagreeable beany taste. The preheated cotyledons are then flaked or ground, according to the requirements of final usage.

Health stores, hospitals and other nutrition-minded groups were among the first users of the new products, which are filling and palatable. Consumers were conquered slowly but steadily.

In Germany, the industry was just starting to step from promotion and

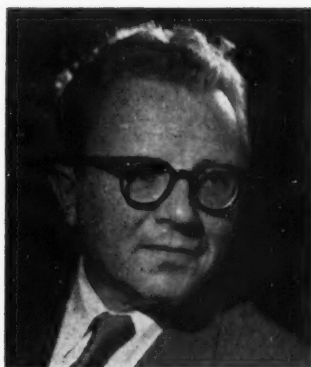
education into actual commercial production when the import and currency policy of the Reich reduced soybean imports so drastically that almost no beans were available for the soy food industry.

The production capacity of the country was reserved for war purposes. Allocations of beans could not be obtained except for army orders and the like. But German industry, like that of other countries then in war, found itself in an excellent position to produce evidence of the tremendous food values of soya products. Full-fat soya products were used as the basis for concentrated high efficiency protein foods for air force pilots, for submarine crews, etc. They were also supplied to factory canteens in industries important to the war. Where maintenance of mental and physical working capacity was imperative, soy flour was used.

* * * *

After World War II, a comparatively small trial shipment of American soybeans was used in Germany to make full-fat soy protein foods for special use in hospitals under strict governmental control.

The success of these foods in treating protein deficiency diseases justified all that had been expected. But the work could not be continued because of the world shortage of fats



W. BENING

and oils. All soybeans were going into fat-extraction plants.

Another event in the postwar years had a terrific effect on soy food promotion in Germany. There was a lack of bread grain as well as fat. The food administrations fell back on Rubener's and Hansa-Muhle's procedure of the protein enrichment of bread with defatted soy flour. So defatted soy flour was shipped to Germany from America.

The grain shortage was severe. The admixture of 10, 12 and 15 percent defatted soy flour was prescribed, and in addition similar percentages of other unusual materials such as potato flour, corn flour and peanut residues. All these were added to a 93-percent-extraction wheat flour of unbelievably poor baking qualities.

Not one single baker in the country could make eatable bread from such a mix. There was not a single consumer who did not complain of the stuff he was supposed to eat.

This was certainly the greatest tragicomedy in the history of soy flour in Europe. Incidentally, there were similar happenings in other parts of Europe. It is not surprising that the reputation of the commodity could hardly be worse than it is.

Greece has given a better example of the use of soy flour to fortify bread. Soy flour was introduced when the country was in its hard struggle to prevent extinction by bolshevism. Italian-German occupation during the war had reduced the country's food reserves. A new emergen-

cy provoked by the civil war required a new means of bolstering the food supply.

At first 5 percent soy flour was added to bread. This comparatively high addition, in combination with the generally poor gluten content and baking quality of the wheat flour then available, brought about a visible shrinkage of the bread volume.

Attempts were made to balance the shrinkage through the addition of

bromates. These helped but the public health authorities objected to their use, and they were discontinued. The reduction of the soy flour content to 3 percent resulted in satisfactory bread.

— s b d —

Increased use of substitute fats won't bring less demand for milk but will change the ways in which milk is used, says a University of Illinois farm marketing specialist.

Here's What It Can Cost You NOT TO INOCULATE



...CLOVERS

Even "good catch" clover stands can cheat you out of yield quantity and protein feed quality. Healthy root nodules created by NITRAGIN bacteria help you get all the forage and all the proteins clovers offer. One test showed that 75 cents for inoculation produced 390 dollars' worth of extra clover seed. In other tests, uninoculated clovers were serious failures—cheating farmers out of pasture, seed and hay. It pays to always inoculate.



...SOYBEANS

Bonus bushels you can expect from inoculated soybeans pay well for the little extra time—for the few cents you invest. A New Jersey Experiment Station proved in field tests that inoculated beans produced 67.8% more yield. A Purdue bulletin claims inoculation can return more than 10 dollars per acre. 91% of the champion soybean growers questioned said they always inoculated. Those expressing a preference chose NITRAGIN 3 to 1.



...LUPINES

Lupine and other cover crop growers claim yield and quality improvement for fields that followed inoculated cover crops. The Georgia farmer pictured here produced an extra 56.3 bushels of corn from an acre which followed inoculated lupines. The other acre produced only 13.6 bushels, mostly nubbins and stunted ears. For soil-building success and crop-boosting power—don't gamble—inoculate with superior-strain NITRAGIN.

Why This Can IS FAMOUS!

For more than 55 years farmers have used NITRAGIN with confidence based on successful experience. NITRAGIN carries a bacteria-count guarantee and results have made these superior strains famous. Ask seedsmen for the inoculant in the orange-colored can. Read the NITRAGIN guarantee.



THE NITRAGIN CO., Inc.

3217 W. Custer Ave. • Milwaukee 9, Wis.



CONVEYING- ELEVATING AND TRANSMISSION MACHINERY

Large stocks carried in our warehouse for prompt shipment.
Our Engineering Department at your service at no extra cost.

Phone — Write or Wire Us

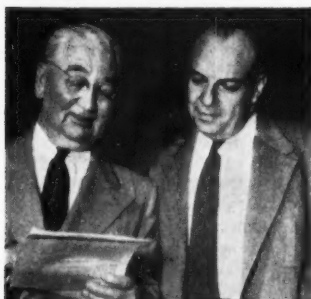
RIECHMAN-CROSBY CO.

Front at Beale, Memphis, Tenn.

DEALERS IN MILL-MACHINERY AND ELECTRICAL SUPPLIES

"Serving Industry since 1895"

VETERAN BEAN BUYER RETIREES AT STALEY'S



KAPP (left) AND MALTAS

Horace J. Kapp, a man who it is said has bought more soybeans during his business career than anybody else in the U. S., retired Jan. 31 as grain department manager of the A. E. Staley Manufacturing Co., Decatur, Ill., corn and soybean processor.

A veteran of 40 years in the grain trade, Kapp began his career with the Baldwin Elevator Co. 10 years before the Staley Co. pioneered the soybean processing industry with the construction of an Expeller plant at Decatur in 1922.

Kapp began buying soybeans about the time the Staley Co. began processing them and got into the business in a big way when he joined Staley's as grain department manager in 1930.

The veteran grain trader estimated that he has bought a total of about three-quarters of a billion bushels of corn, soybeans and other grains. Kapp in one six-day period in 1946 bought more than a million bushels per day. He purchased beans for as little as 21½ cents a bushel in 1931 and as high as \$4.16 a bushel in 1943.

Kapp, who is also a vice president and director of the Staley Co., will be succeeded as grain department manager by Kenneth J. Maltas, who has been his assistant the past seven years. A graduate of Iowa State College, Maltas joined the company as a feed salesman 21 years ago.

— s b d —

GERMANY IN BARTER DEALS WITH CHINA

Western Germany has made arrangements for limited trade with Red China on a barter basis, reports Foreign Crops and Markets of the U. S. Department of Agriculture.

Such a transaction, worth about 3.6 million dollars in each direction between a Bremen import-export firm and the China National Import Export Corp. (CNIEC), has been approved, the Ministry of Economics confirms. The contract calls for German exports of industrial products. Germany will import in return soybeans, tung oil, other oilseeds and vegetable oils, casings, pig bristles and powdered eggs. Soybeans, in an amount of 2.4 million dollars, will be by far the most important item.

No further transactions of this kind will be considered for approval until there has been an opportunity to see how the trade develops, according to an official of the Ministry office.

— s b d —

FUTURES TRADING DOWN

Futures trading in soybean products was in smaller volume for the fiscal year ending last June 30 than for the previous year, reports J. M. Mehl, administrator of the Commodity Exchange Authority, in his annual report.

There was a substantial decrease in trading in soybean oil; and small

decreases in soybeans and soybean oil meal.

The estimated value of futures trading in all contract markets, for the fiscal years ending June 30, 1951, and June 30, 1952, as released by Mehl:

Commodity	1951 1,000 dollars	1952 1,000 dollars
Soybeans	8,899,167	8,741,413
Cottonseed oil	1,679,692	1,238,407
Soybean oil	625,274	341,085
Cottonseed meal	45,594	46,763
Soybean meal	176,255	170,729

Totals 47,143,639 49,179,134

— s b d —

OXIDIZED OILS

A special treatment of inedible animal fats and of vegetable oils with hydrogen peroxide so specially oxidized oils result is announced in the annual report of the U. S. Department of Agriculture's Bureau of Agricultural and Industrial Chemistry for fiscal year 1952.

Both animal and vegetable oils have been prepared in this manner, and are especially valuable as plasticizers in making vinyl plastic products. They help prevent discoloration and deterioration. These special oils for use as plasticizers are now being prepared commercially, according to the Bureau.



CMI

- DESIGNING
- ENGINEERING
- CONSTRUCTION

You can rely on CMI -- We are equipped to do your plant rehabilitation, plant facilities installation, and construction and installation of complete Solvent Process Plants.

CONSTRUCTION MANAGEMENT, INC.

1542 W. Washington St. • Indianapolis 22, Ind.

SUGGEST RESEARCH ON SOY PROTEINS

Investigations of the fats and oils requirements of humans, and fundamental research on the protein properties of soybeans and peanuts, were recommended by the oilseeds and peanut advisory committee which met at Washington, D. C., Feb. 11-13. Established under the authority of the Research and Marketing Act of 1946, the committee meets annually.

Among top priority recommendations of the committee were:

1—Expand research on flavor stability, and on the fundamental investigations of soybean fatty acids.

2—Initiate research on the composition of the seed and oil of unusual plants considered of potential value as new crops for the South.

3—Expand research on the nutrients in foods, including soybeans and peanuts.

4—Expand work on methods of determining moisture content in soybeans and undertake studies to de-

termine where marketing economies may be effected by reducing risks in marketing and processing soybeans.

The committee recommended expansion of marketing service work to provide a running appraisal of the world's fats and oil situation and an analysis of the long-term export outlook. It recommended also expansion of the marketing educational work of the state extension services to provide more attention to aid in the development of improved oilseeds and peanuts marketing organizations, methods and practices.

Committee members attending the meeting were: Otto Brandau, Rudd, Iowa; John H. Bryson, Dothan Oil Mill Co., Dothan, Ala.; Harry J. Deuel, University of Southern California, Los Angeles; T. H. Gregory, National Cottonseed Products Assn., Memphis; C. L. Halliday, Derby Food Products Co., Chicago; Lloyd Mehlhouse, Olivia, Minn.; A. D. Richardson, Floresville, Tex.; Charles B. Shuman, Illinois Agricultural Assn., Chicago; S. E. Statham, Cobb, Ga.; Obed A. Wynn, Rutland, N. Dak.; Edward J. Young, Stevens Industries, Inc., Dawson, Ga.

— e b d —



---here are BETTER NEW BAGS

Discover for yourself the high quality and excellence of all Midwest Products. Fine quality and expert craftsmanship are combined to give you the very best the market affords.

BURLAP • COTTON • PRINTS

- Carefully selected quality materials
- Uniform weight, size and strength
- Modern facilities keep costs down
- Bag printing in colors to order
- 24 hour service if needed
- Agricultural, Industrial, Commercial

Write, Wire, Telephone for full information

RECONDITIONED BURLAP & COTTON BAGS

Our thorough processing including sterilizing and treatment provides you with bags which approach new in serviceability.



C. T. PRINDEVILLE

C. T. Prindeville, vice president of Swift & Co., was elected director of the company at the annual meeting of shareholders recently.

Prindeville has had a wide background of experience with Swift & Co. He joined the Swift organization in 1921, as a cattle driver. Later he served as a weight taker and a time study man. Subsequent assignments included association with oil mill and vegetable oil refinery operations.

MIDWEST

BURLAP & BAG COMPANY, Des Moines, Iowa

PROCESSORS AND CONVERTERS OF USED BAGS • MANUFACTURERS OF NEW BURLAP, COTTON AND PAPER BAGS

213 THIRD STREET PHONE 2-8355

DES MOINES, IOWA 213 Third St. 2-8355	KANSAS CITY, MO. 908 Lydia Ave. WA 134-5115	MINNEAPOLIS, MINN. 3716 First St. N. 4U-8426	WESTVILLE, ILL. N. State Street 7031
---	---	--	--

Members of the Sanitary Institute of America and the National Bag Dealers Association

Six States to Peoria Conference

A joint tri-state conference for processors and agronomists of six states will be held in Peoria Mar. 18 and 19. R. G. Houghtlin, president of the National Soybean Processors Association, has announced.

States involved are Iowa, Minnesota, and Missouri; and Illinois, Indiana and Ohio. The two groups hold joint meetings periodically.

Conference will start with a 7 p. m. dinner at the Pere Marquette Hotel Mar. 18. Program sessions will be held at the Northern Regional Research Laboratory the next day, and there will be two conducted tours of the laboratory.

The Mar. 19 morning session will include panel discussions on trichloroethylene-extracted soybean oil meal and on soybean varieties, defoliation and weed control.

J. C. Cowan, Northern Regional Research Laboratory, Peoria, will be chairman of the trichloroethylene panel. Men who will take part in the panel: W. R. Pritchard, University of Minnesota; J. C. Picken, Iowa State College; L. L. McKinney, Northern Regional Research Laboratory.

J. W. Calland, director of the National Soybean Crop Improvement Council, will be chairman of the variety-weed-control panel. Those taking part will include: A. H. Probst, Purdue University; C. R. Weber, Iowa State College; E. E. Hartwig, Delta Branch Experiment Station; Fred Slife, University of Illinois; J. L. Cartter, director U. S. Regional Soybean Laboratory; J. R. Fleetwood, University of Missouri.

The Mar. 19 afternoon session will include the following speakers and their subjects:

E. A. Gastrock, Southern Regional Research Laboratory, "Filtration-Extraction of Soybeans and Other Oil seeds."

J. Wesley Nelson, chairman soy meal committee, Soybean Research Council, "1953 Cooperative Tests on the Nutritional Value of Soybean Oil Meal."

And the following staff members of the Northern Regional Research Laboratory will discuss selected research problems at the Laboratory: H. J. Dutton, "Global Edible Spread"; A. K. Smith, "Effect of

Soy Flour and Its Fractions on Bread"; C. D. Evans, "Studies on Phytic Acid as a Metal-Inactivator for Soybean Oil"; Duncan Macmillan, "Grading of Green Soybean Oil."

Hotel reservations are to be made direct with Pere Marquette Hotel, Peoria, Ill. Dinner and luncheon reservations should be made with Dr. J. C. Cowan, head, oil and protein division, Northern Regional Research Laboratory, Peoria 5, Ill.

— a b d —

BAUMBACH RETIRES

Announcement has been made by L. T. Murphy, vice president in charge of production, Allied Mills, Inc., of the retirement of G. R. Baumbach, manager of the Peoria, Ill., plant, after almost 40 years of continuous service. A dinner in his honor at the Creve Coeur Club in Peoria was attended by a large number of his associates, including several officers from the Chicago office.

Murphy also announced that W. A. Stohrer, who has been with Allied Mills for many years and for the past several years as plant manager at Omaha, succeeds Baumbach.

F. H. Blough, with the company many years in many capacities, and for the past several years in the general offices at Chicago, has been appointed Omaha plant manager.

WEISS PROMOTED



MARTIN G. WEISS

The U. S. Department of Agriculture has announced the appointment of Dr. Martin G. Weiss as research director of field crops in the Bureau of Plant Industry, Soils and Agricultural Engineering.

The position has been vacant since last June when Dr. W. M. Myers resigned to take charge of the work in agronomy and plant genetics at the University of Minnesota. Weiss has been soybean project leader for the Bureau of Plant Industry at Beltsville. In his new post, he will be responsible for planning and managing activities in production research on cereal crops, cotton forage crops, sugar plants, tobacco, and crop diseases. Weiss joined USDA in 1936.

PROCESSING MACHINERY and MILL SUPPLIES

We manufacture and install:

Soybean Elevators, complete with tank
Soybean Buckets for Elevators

We carry in stock:

Goodyear Industrial Belting for drags, conveyors, transmission	Kewanee Truck Hoists
Universal Moisture Testers, and related testing equipment	Fairbanks-Morse electric motors and scales
Phelps Fans for those using air in handling soybeans	Browning Sheaves

We prefabricate office buildings and warehouses

Your orders filled promptly

Wonder State Manufacturing Co.

P. O. Box 451

Phone 2083-4670

Paragould, Arkansas

PUBLICATIONS

Cottonseed Cheese

Cheese can be produced from cottonseed kernels.

This was determined by Dr. W. W. Meinke, associate research chemist at the Texas Engineering Experiment Station, in chemurgic experimentation to find new food uses for cottonseed.

The curds produced by cottonseed protein solutions by acid precipitation are believed to be such as could be ripened into good vegetable cheese by specific bacteria.

The process for providing the product was somewhat similar to that employed in making dairy cheese, except that the "milk" consisted of protein solutions prepared from cottonseed kernels.

CHEESE CAN BE PRODUCED FROM COTTONSEED. Texas Engineering Experiment Station, College Station, Tex.

Leaf Spot Disease

The disease commonly known as *Phylloticta* leaf spot has been reported in the past as attacking only soybean leaves. But it was found to attack stems and pods, and was abundant in plantings at Salisbury, Md., in August and September 1951. University of Maryland pathologists report.

Fields infected were Lincoln, Hawkeyes, Monroe, and an unnamed variety. Damage ranged from one-third to 100 percent.

AN OUTBREAK OF PHYLLOSTICTA CANKER AND LEAF SPOT OF SOYBEANS IN MARYLAND. By R. A. Jehle, Anna E. Jenkins, K. W. Kreitlow, and Helen S. Sherwin. Maryland Agricultural Experiment Station, College Park, Md.

Diseases in Iowa

Stem canker and brown stem rot were the most important diseases on soybeans in Iowa in 1951, reports J. M. Crall in *Plant Disease Reporter*.

Less important diseases were root and stem rot, bacterial blight, bacterial pustule, wildfire, brown spot, downy mildew, frog-eye, *Phylloticta* leaf spot, mosaic, pod and stem blight, and purple seed stain.

Stem canker was widespread, varying in prevalence in individual fields from a trace to 10 percent. First infection was found on Aug. 2 and considerable infection was found in a number of fields by Aug. 10. The disease was not considered as serious in 1951 as in the two previous years, however.

Brown stem rot was more widely distributed in Iowa than in any previous year, being found in all parts. First occurrence was noted Aug. 29. Prevalence in individual fields varied from a trace to 100 percent.

Rhizoctonia root and stem rot was prevalent in northern Iowa and caused more severe local losses, but was less serious than the year previous.

Brown spot was present in almost every field, wildfire was severe in a

few fields near Muscatine, and frog-eye leaf spot was found in Iowa for the first time.

SOYBEAN DISEASES IN IOWA IN 1951. By J. M. Crall. Iowa Agricultural Experiment Station, Ames, Iowa. *Plant Disease Reporter*, July 15, 1952.

Soy Flour in Bread

No significant differences in the flavors of breads made with soy flour or dry milk solids were determined in six tests at the Northern Regional Research Laboratory.

The crumb in both breads was equally soft and the rate of firming was the same.

In previous studies it was determined that 5-percent white soy bread was at least equal in nutritional quality to a 6-percent white milk bread. Both were superior to a white water bread.

SOY-FLOUR BREAD WINS ITS PLACE. By C. W. Ofelt, A. K. Smith, C. D. Evans and H. A. Moser. *Food Engineering*, December 1952.

Fluorescing Meals

In contrast to the results with solvent-extracted soybean oil meals, experiments with Expeller meals indicate that high fluorescing properties of these meals are not necessarily associated with over-heating. Three Expeller meals, designated by the processor as "under-heated," "normally-heated," and "over-heated," were included in the diets of chicks to four weeks of age as the only source of supplementary protein. Rate of chick growth indicated very little difference in nutritive value among the three meals.

Measurements of fluorescence and of urease activity of solvent soybean

SPECIALIZING IN

STELLITED PARTS
FOR
OIL-MILL SCREW-TYPE PRESSES

KNIFE & BREAKER BARS

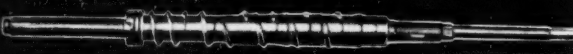
BARREL BARS

VERTICAL WORMS


INTEGRAL SHAFTS & SECTIONAL SHAFT PARTS



ANDERSON TYPE



FRENCH TYPE



BOWMAN

Welding & Metal Works

501-505 EAST NORTH ST. DECATUR - ILLINOIS

Your inquiries will receive our very prompt attention if you address them to Dept. S.D.

oil meals gave a satisfactory evaluation of the nutritive value of these meals for chicks.

FLUORESCING PROPERTIES OF EXPELLER SOYBEAN OIL MEALS. By Stanley L. Balloun and Elton L. Johnson, Iowa State College, Ames, Iowa. Poultry Science, September 1952, Vol. 31, No. 5.

Miscellaneous

A REVIEW OF THE COMMERCIAL AND EXPERIMENTAL PROCESSING OF OIL-BEARING MATERIALS. By F. A. Deckbar, Jr., R. M. Persell, E. F. Pollard and E. A. Gastrock, Southern Regional Research Laboratory, 2100 Robert E. Lee Blvd., New Orleans, La. Reprint from Cotton Gin and Oil Mill Press, July 1952.

FLAXSEED AND LINSEED OIL. A summary of information on uses, production, trade and supply. Industrial Materials Series Report No. M-7, November 1952, U. S. Tariff Commission, Washington, D. C.

BOOKS

Book on Beef Cattle

John W. Wiley & Sons, Inc., has published the fourth edition of the book "Beef Cattle," by Roscoe R. Snapp, professor of animal science at the University of Illinois and chief of the beef cattle division of the Illinois Agricultural Experiment Station.

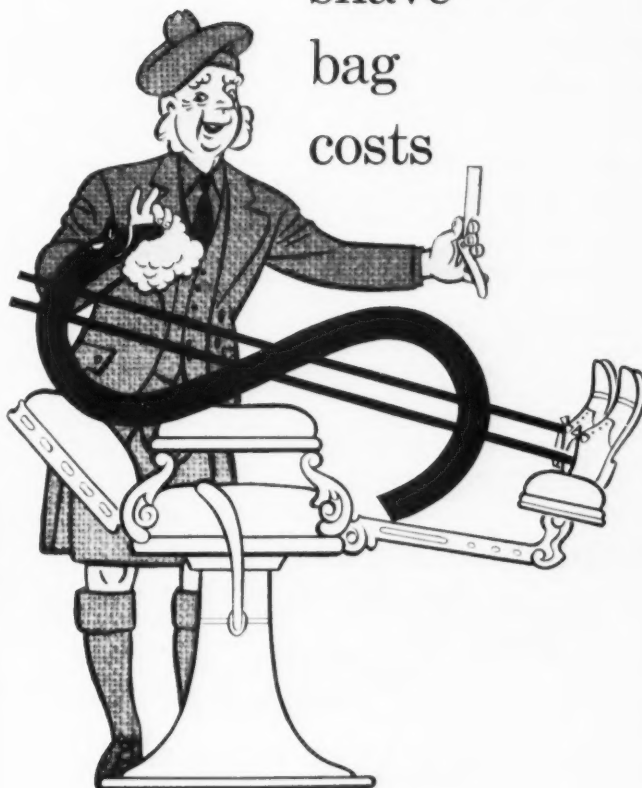
Dr. Snapp has taught courses in beef cattle production for the past 25 years, and he has planned and supervised experiments on almost all phases of beef cattle feeding and management.

The book covers breeding, feeds, feeding, economic trends, equipment and other aspects of beef cattle production. In this fourth edition, "Beef Cattle" has been revitalized again to include new information on breeding and feeding techniques, plus a report of results of hundreds of feeding experiments.

BEEF CATTLE. By Dr. Roscoe R. Snapp. \$6.50. Order through Soybean Digest, Hudson, Iowa.

MARCH, 1953

How
to
shave
bag
costs



...Use Bemis Burlap Bags!

Burlap Bag prices are low.

They are multi-trip bags . . . every re-use cuts the cost still more. And Bemis quality burlap gives you maximum re-use.

That's why you can shave costs with Bemis Burlap Bags.

P. S. Supplies are excellent, too. The jute situation overseas shows you can base your long-term plans on burlap.

Bemis



General Offices—St. Louis 2, Mo.
Sales Offices in Principal Cities

FEEDING

Feathers as Chick Feed

A combination of processed chicken feathers and soybean oil meal and blood meal produces good results as a chicken feed, Dr. O. H. M. Wilder of the American Meat Institute Foundation told the recent annual convention of the National Renderers Association in San Francisco.

"The Western Regional Research Laboratory at Albany, Calif., has developed a method for processing feathers that produces a product promising as a feedstuff," said Dr. Wilder.

"The processed feathers are not a complete protein, in that they do not contain enough of all the essential amino acids to support good growth, but they do apparently supply enough of something that makes chicks grow faster when they are

used in the right combinations with other feeds. To get the most good out of feathers we must use them along with other protein feeds that supply an abundance of lysine and tryptophan.

"One of the best combinations that I have found to date is a soybean-oil-meal-blood-meal-feather-meal mixture. The blood meal supplies lysine and tryptophan and the feather meal supplies isoleucine that is deficient in the blood meal. Results shown in the table are typical of what we get when chicks are fed feather meal or a feather-blood meal combination along with a corn-soybean oil meal basal diet.

"The 14-percent-soybean-oil-meal ration is a low-protein diet to which the supplements were added, replacing corn. Additions of feather meal raised the protein level of the ration, and at the same time gave an increased weight gain and improved feed efficiency.

"Feather meal and blood meal used in approximately equal proportions give growth responses that are

quite satisfactory and in some cases have been almost as good as the response obtained from meat scrap.

"Other materials beside the chicken feathers may eventually find a use in feeds—even chicken manure which contains a fairly high level of vitamin B-12. Such materials, though, are not a proper ingredient of meat scrap or tankage and when used, the feeder or feed manufacturer must know exactly what he is getting and he must know how to use it to get results."

CHICK FEEDING TESTS—FEATHER MEAL

Ration	8 week wt. grams	Feed efficiency feed, gain
C-22		
25% soybean oil meal (control)	852	2.80
14% soybean oil meal (control) ¹	732	3.77
14% soybean oil meal + 3% feather meal	795	3.26
14% soybean oil meal + 6% feather meal	819	2.94
14% soybean oil meal + 3% feather meal		
14% soybean oil meal + 3% blood meal	915	2.66

¹Low-protein rations: gr. yellow corn 71.3, dehydrated alfalfa meal 5.9, corn gluten meal 3.9, soybean oil meal 14.6, limestone 2.9, steamed bone meal 2.0, iodized salt 0.5, vitamin A & D oil 0.2, plus manganese sulfate and B-vitamins mixture. Supplements were added to replace corn.

Hart-Bartlett-Sturtevant Grain Co. has this to say about its



GRAIN DRIER

"... we have been definitely pleased with the drier. It has performed well for us. We have used the drier extensively and are glad not only to recommend the drier to our friends but to say that all of our contacts with the Shanzer organization have been very pleasant and satisfactory."

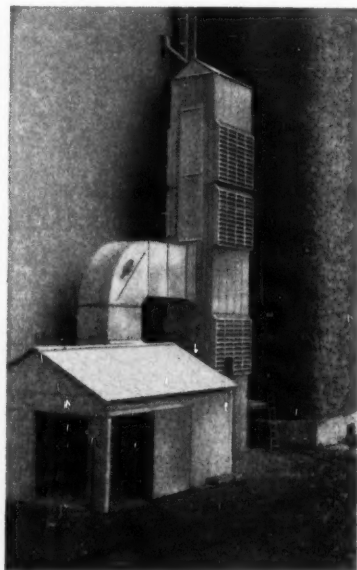
and you, too, will find a SHANZER GRAIN Drier to meet all your needs for high-capacity, high-profit grain drying. Custom-built BERICO or prefabricated ECONOMY, every SHANZER Drier is an investment assuring, at low operating cost, the largest per-bushel profits you've ever known! Wire or write today for full details.

SHANZER MANUFACTURING CO.
85 BLUXOME STREET • SAN FRANCISCO 7, CALIFORNIA

DESIGNERS & MANUFACTURERS OF

Grain Driers in Capacities from 100 to 1000 Bushels per hour

MAX-CAPACITY BUCKET ELEVATORS • CONVEYING MACHINERY



Sales and Service
Representatives in all
leading Grain centers.

LETTERS

"Elevator in Bad Spot"

TO THE EDITOR:

Referring to Roy Goodwin, Paragould, Ark., and G. R. Roscoe, Greenwich, Ohio (Soybean Digest, January 1953).

The soybean shipper for export is in a very bad spot I am sure. But to amend that I would say that all small country elevators are in a bad spot as they are expected to stand almost any loss that can happen.

We have processors who have agreements with the railroads not to weigh the car enroute. That deprives the elevator of a check weight in most cases. They unload the beans over the hopper scales and pay freight on what they unload. From the loss I had to take on some of the cars I had a weight check on I would say that all the 3 percent of foreign material I was allowed had sifted to the floor. I can't think that went over the hopper scales.

They are making much of the foreign matter in beans. I will say that if you ship a car with more than 3 percent foreign matter you will get docked. But I have shipped several cars of No. 1 beans and didn't get any more for them.

Another big loss we had to take this past season was, as Mr. Goodwin says, caused by beans not being inspected promptly and not being able to handle from the car. We bought 14-percent beans and they would stay in cars for weeks and dry down to 11 or 12 percent, which was a big loss in weight.

The undersigned operates a small country elevator here. As I see it all such elevators are due for extinction unless they find their place as a link in the chain of handling grain. Speculators are in a commanding position here now.—Dean E. Adams, Tamms Grain Co., Tamms, Ill.

Leave Moisture Alone

TO THE EDITOR:

There is a lot said about grading standards and the effect it has on our export trade. I'm all for a higher

grading standard but the moisture content of 14 percent should be left alone.

But in my opinion our export trade is hurt more by the secretary of agriculture, both on cotton and beans. It looks to me like Brannan set out to see that the farmer didn't get much out of either. You let cotton or beans either one go up a little and he would cut the export. If our new secretary is not a man with more foresight than the old one it doesn't matter how we harvest our crops.

I'm hoping the new administration

when they take up the farm program will consider the cost of making the produce.—J. W. King, Foules, La.

Looks Forward to Digest

TO THE EDITOR:

I look forward to receiving my copy of the Soybean Digest each month; especially enjoy reading the "Grits and Flakes" section along with articles on new processes and new construction pertaining to soybean plants.—R. C. Evenson, Kiel, Wis.

AN ANNOUNCEMENT...

As of November 1st, 1952, we have purchased the Kewanee Machinery & Conveyor Co.'s Commercial Grain Elevator Equipment Line—

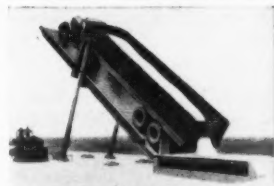
Consisting of



Hydraulic
TRUCK DUMPERS

Overhead
TRUCK LIFTS

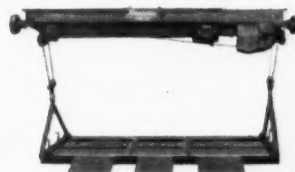
Flexible LOADING SPOUTS
GRAIN GRATES and ALL MAINTENANCE PARTS



HYDRAULIC TRUCK DUMPER

Takes all the time-consuming hard work out of unloading, eliminates "waiting time."

- Unloads all sizes of trucks and big Tractor Trailers.
- Sizes—25', 45' and 50' Platforms. Other sizes special.
- Capacities to 100,000 lbs.
- Scale and Non-Scale Types.
- Twin Hydraulic Power Units.
- Pit and Pitless Models. Pitless reduces foundation costs.



OVERHEAD TRUCK LIFTS

Engineered for easy operation and dependable performance.

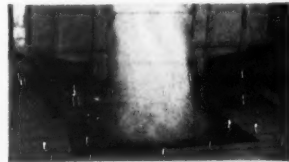
- Adjustable for driveways 11' to 15'-6" widths.
- Low Head Room.
- Large, deep flanged winding drums. Uniform winding.
- Cut worm Gear Reducer.
- Crucible steel lifting Cables, extra flexible.



FLEXIBLE LOADING SPOUTS

Offer greater flexibility to fill far ends of cars or barges. Patented renewable bottoms of abrasion-resistant steel give spouts long life and effect real savings.

A remarkable feature in Kewanee Spouts is that they always align themselves so the Renewable Bottoms are down. They take all the wear!



GRAIN GRATES

Kewanee Grain Grates are made of 1/2" by 3" bars fitted into slanted slots in support castings. This provides strength, rigidity and makes it easy to remove any number of bars for entry into the pit. Slanted grate bars insure positive flow of all grains into pit.

Whatever your unloading problem, there is a Kewanee adaptable to it.



Write us for complete information.

GRITS and FLAKES...

FROM THE WORLD OF SOY

◆ H. R. Diercks, regional manager of Cargill, Inc., southern region, and manager in its St. Louis office, is appointed merchandising manager of the firm's grain division and will move to the administration office at Wayzata, Minn., Erwin E. Kleim, vice president of the grain division, announces.

◆ Ross A. Woolsey, Jr., vice president of the Blanton Co., was elected president of the Merchants Exchange of St. Louis Jan. 21. R. H. Dean, Ralston Purina Co., was elected first vice president; and E. S. Deibel, Elam Grain Co., second vice president. Directors elected: A. H. Davis, Lowell Hoyt & Co.; Kurt Horn, Continental Grain Co.; E. B. Scanlon, Valier & Spies Milling Co.; and S. J. Schuster, Nellis Feed Co.

◆ John J. Wolcott, Jr., has been elected president of the Kansas City Board of Trade. Elected first vice president was Ray E. Larson of Goffe & Carkener, Inc.

◆ Ed Jappe, Marianna Sales Co., is the new president of the Memphis Merchants Exchange.

◆ Ray A. Yort has been appointed assistant to the director of formula feed sales for General Mills, Inc., Minneapolis, Minn. He will be in charge of overall merchandising and sales training. He started with General Mills in 1933.

◆ The reins of the Norris Grain Co., Chicago, have been taken over by James Norris' two sons, James D. and Bruce A. Norris, James D. as chairman of the board and Bruce as president. They say there will be no change in policy.

◆ Osgood W. Tracy, general manager of the chemical products department of Esso Standard Oil Co., was recently elected president of Enjay Co., Inc., a sales affiliate marketing petroleum chemicals nationally.

◆ Henry W. Collins, vice president of west coast grain operations for Archer-Daniels-Midland Co., was elected to the company's board of directors.

◆ Lee Ashcraft has been named chairman of the executive committee of Ashcraft-Wilkinson Co., Atlanta. George W. McCarty has been moved up to chairman of the board from his former position as president; and Van W. Wilkinson elected president. Ashcraft was one of the founders of the company.

◆ Dr. H. R. Bird, formerly in charge of U. S. Department of Agriculture poultry research at Beltsville, Md., has been appointed professor of poultry husbandry at the University of Wisconsin.

◆ The Albemarle Paper Manufacturing Co. announces that with the opening of its new mill at Roanoke Rapids, N. C., it has greatly increased the facilities of its completely integrated operation for the manufacture of multiwall bags.

FORM NEW COMPANY



J. G. THOMAS



W. P. THOMAS

J. G. Thomas, Sr., and W. P. Thomas announce the sale of their entire interest in the Industrial Machinery Co., Inc., Fort Worth, Tex.

J. G. Thomas, Sr., has been engaged in the screw conveyor business for the past 35 years. He was the founder of Industrial Machinery Co. He is retiring from active participation in the company, but will be available in an advisory capacity.

W. P. Thomas has been in conveyor manufacturing since finishing his schooling, with Industrial Machinery Co., and for a few years with Beech Aircraft Corp.

The Thomases announce the formation of a new firm to be known as the Thomas Conveyor Co. Land has been purchased for a plant at Burleson, Tex. The key personnel have all been selected. They are said to be experts in the conveyor manufacturing business with many years of experience.

The Thomases also announce they are negotiating for locations to better service their customers outside of Texas.

WILBUR-ELLIS COMPANY

Brokers of Soybean Oil and Proteins
COMPLETE DOMESTIC AND FOREIGN COVERAGE

105 West Adams St., Chicago, Ill.
Telephone: ANDOVER 3-7107

New York

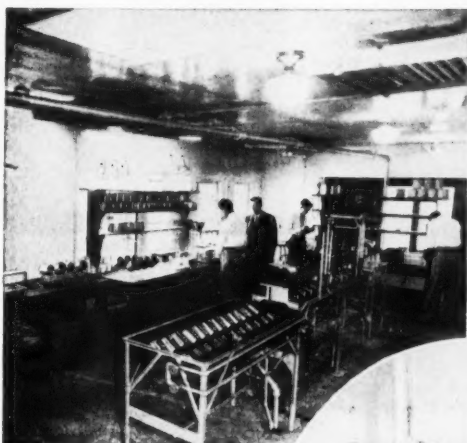
San Francisco

Buffalo

Los Angeles

Seattle

Serving The Soybean Industry



The Chicago, Ill., laboratory is equipped with the most modern equipment for refining soybean oils.



The Des Moines, Iowa, laboratory with all the latest equipment for refining oils.



The Oil Refining Department at the Memphis, Tenn., laboratory, with a capacity of 150 refinings daily.

7

Chemical Laboratories
to serve you.

- Chicago, Ill.
9 So. Clinton St. Bldg.
- Des Moines, Iowa
- Memphis, Tenn.
- Little Rock, Ark.
- Blytheville, Ark.
- Cairo, Ill.
- Clarksdale, Miss.

WOODSON-TENENT LABORATORIES

Official Chemists for the Chicago Board of Trade

MAIN OFFICES: 265 SOUTH FRONT ST.

MEMPHIS, TENN.

SPECIALIZING IN SOYBEAN OILS — CAKE — MEALS — FEEDS

"Over ONE BILLION dollars worth of products analyzed since 1935."

◆ Stephens-Adamson conveyors and elevators in the soybean processing plant of the North Iowa Cooperative Processing Association, Manly, are featured in a recent issue of the S-A Conveyor.

◆ Reuter & Bragdon, Inc., shareholder and financial public relations firm, Pittsburgh, announces the appointment of D. Clinton Grove to their staff. He has been associated with Blaw-Knox Co. for many years.

◆ Plans for expansion of the Fulton Bag & Cotton Mills' multiwall paper bag division with a new multiwall plant in St. Louis have been disclosed by Clarence Elsas, president. The building, with about 50,000 square feet of floor space, will be a modern single story structure. The new factory—the firm's third multiwall plant—is expected to be in operation by July or August.

◆ Chester B. Biddle, Biddle Farms, Remington, Ind., has retired as president of the Purdue University Ag Alumni Association, but remains as a director.

◆ J. B. Ricker, former district superintendent over southeastern oil mills for Swift & Co., is retiring after more than 36 years continuous service in Swift oil mills. He was former manager of the Memphis, Tenn., mill.

◆ Georgia Feed and Poultry Conference will be held June 4 and 5 at the Hotel Biltmore in Atlanta. For further information contact Will L. Kinard, 601 Trust Co. of Georgia Bldg., Atlanta.

◆ Walter M. Sanders, 59, secretary-treasurer of L. P. Cook & Son, Memphis, Tenn., died of a heart attack Feb. 4. He had been with the firm for 32 years.

◆ L. C. Perkinson was elected vice president and G. C. Walker treasurer of the American Cyanamid Co.

◆ The Farm Equipment Institute of Chicago, Ill., has announced the appointment of Kenneth E. Huddleston to its staff. For several years he was connected with the USDA Soil Conservation Service in Washington, D. C.

TO McLAUGHLIN, WARD



GIL ALBRIGHT

Gil Albright has joined the Wardcraft equipment division of McLaughlin, Ward & Co., Jackson, Mich., the firm has announced. His headquarters are at Mattoon, Ill.

Albright has been connected with the grain and feed trade for many years.

He will engineer and sell Wardcraft processing and material handling and power transmission equipment in the state of Illinois, servicing the grain, feed and seed trade.



Looking
for
QUALITY?
VALUE?

In Textile Bags?

Buy *Mente*—Satisfaction *Plenty!*

BURLAP or COTTON
PRINTED or PLAIN
NEW or USED

Write, wire or phone for latest quotations
Dept. T

MENTE & CO., INC.

Box 1098
Savannah

Box 690
New Orleans

Box 204
Houston

MENTE BAGS

MARIANNA SALES COMPANY

MEMPHIS 1, TENN.

Dealers in

**Soybean and Cottonseed
Products**

Brokers in

**Soybean and Cottonseed
Meal Futures**

Members

Memphis Merchants Exchange

American Feed Manufacturers Association

Tel. 37-8585

L. D. 364

PLANT TO PROSPER



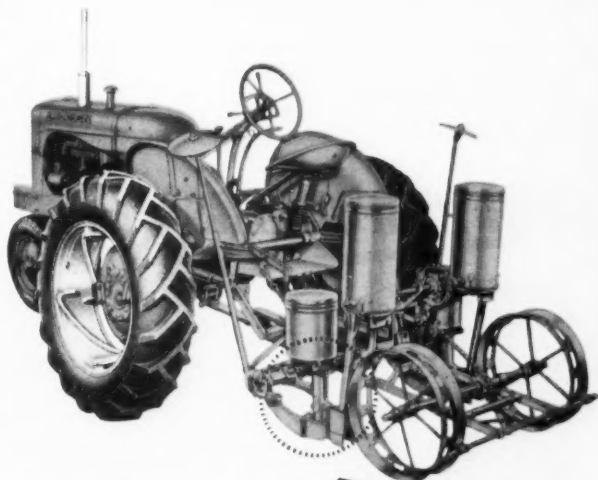
with new A-C SHORT-DROP planters

Kernels travel only 14 inches from seed hopper to soil. They drop straight down . . . quickly . . . and without bounce or scattering.

That's how Allis-Chalmers 2-row and 4-row hydraulic-lift planters space seed in the row with new high-speed accuracy.

A-C Short-Drop planters can give you a higher stalk population without crowding. You can have more plants per acre, with fertilizer positioned exactly right.

They're Free-Swing . . . led from a single forward hitchpoint . . . free to follow the tractor on the contour or straightaway. Now you can follow this new short-drop planting system, hold moisture and soil, boost yields. Ask your A-C dealer how. He has the latest answer in modern tractor planters.



SHORT BOOT
Plants with
High-Speed Accuracy



ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

FREE with every A-C drill planter equipped with corn hoppers, a set of seed plate selectors for corn, beans, and sorghums.

◆ G. R. Peterson, regional sales manager of Pillsbury's feed and soy division, has announced the appointment of Art Paulson as area sales manager. He will be responsible for Pillsbury feed sales activities in 16 territories covering most of Illinois and Indiana and part of Michigan. He was formerly territory manager in northern Iowa for Pillsbury.

◆ The Feed Service Co. opened its offices at 502 South Front St., Mankato, Minn., Feb. 2. The firm was founded by E. T. Cashman, who has been in the feed business for the last 26 years, the last two as general manager of the Archer feed division of Archer-Daniels-Midland Co. in Minneapolis. The firm will represent a number of soybean processing and feed manufacturing firms.

◆ Max Spencer has been appointed senior technical engineer at the Decatur, Ind., plant of Central Soya Co., Inc. He will coordinate lecithin activities of the technical, developmental, production and quality control departments in his new position. Spencer is a chemical engineering graduate of Purdue University.

◆ Bemis Bro. Bag Co. recently elected F. V. Deaderick to membership of the board of directors, and R. Ramsay secretary and comptroller.

◆ Directors of the Chicago Board of Trade have acted favorably on the application of the Honeymead Products Co., by which tank space amounting to 1.5 million pounds at their Mankato, Minn., plant has been declared as regular for storage and delivery of soybean oil on Chicago Board of Trade contracts.

◆ Shanzer Manufacturing Co., San Francisco, will expand its operations to include several important new pieces of machinery of interest to the grain producer and handler, sales personnel attending the annual sales meeting there recently were told. Interest in artificial drying of grain is at a new height despite an abnormally dry season, evidence at the meetings disclosed.

BARNET PROMOTED



FRED G. BARNET

Fulton Bag & Cotton Mills announce the promotion of Fred G. Barnett to the position of assistant manager of their Dallas operations.

Barnet is a director of the company and will assist George W. Williams, manager of the Dallas plant, in the general operation and supervision of Fulton's activities in the Southwest.

STAR PERFORMERS *for your every container need*



FULTON QUALITY BURLAP BAGS

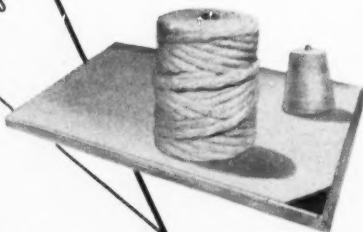
FULTON QUALITY COTTON BAGS

USED BURLAP AND COTTON BAGS

FULTON MULTIWALL PAPER BAGS

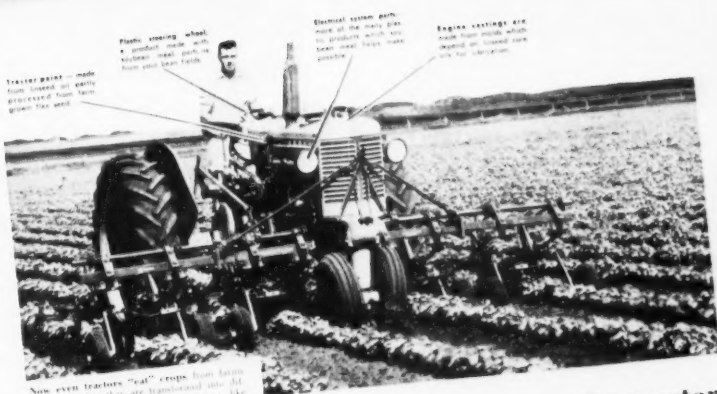
EAGLE SAIL TWINE AND

FULTEX TARPAULINS



Fulton BAG & COTTON MILLS

ATLANTA . NEW ORLEANS . DALLAS . ST. LOUIS . DENVER . LOS ANGELES . KANSAS CITY, KANS. . MINNEAPOLIS . NEW YORK CITY, 347 MADISON AVE. . WINTER HAVEN, FLA. . SAN FRANCISCO . PHOENIX



Now even tractors "eat" crops from farms like yours after they are transformed into different products by creative processors like Cargill. With new uses like these for your crops, no wonder Creative Processing rates up 3/4 of all farm products.

He's cultivating parts of a tractor

These soybeans may end up in your tractor thanks to Creative Processing that uses up 3/4 of farm products.



Your market for soybeans is better because this pie and sausage like it every day is baked with shortening containing soybean oil. Soybean farmers need creative processors to take beans from the field and end up with ease of shortening on process, delivery, and Cargill soybean oil plants are part of this creative processing chain.

Tractors help produce soybeans. Soybeans help produce tractors. Almost unbelievable, isn't it, that things you grow help make the implements you use to grow them.

Note around the tractor picture above just four of the important uses made of soybeans and other products grown on farms in this area, and at least partly processed in Cargill plants.

Every day Cargill Creative Processing is helping to stimulate the market for dozens of farm products. Prices go along with supply and demand. Cargill is glad as Creative Processing broadens the markets for the products you grow.

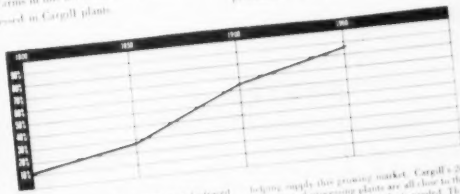
Through its feed and seed divisions, Cargill also processes many products for more profitable farm use.



Because Cargill pioneered the use of antibiotics and Vitamin B12 in its Nutrena Pig and Hog Feeds, many farmers report they can now raise hogs faster than ever before. Nutrena Feeds are another important phase of Cargill's Creative Processing. In Nutrena feed mills up to 11 different farm grown ingredients are processed into feeds. This helps make a bigger demand for products. This helps make a bigger demand for products. This helps make a bigger demand for products.

How farm markets have grown can be traced on this chart which shows the increase in American non-farm population. As more people move to cities and towns, the greater is the market for farm products. That's a big reason why farmers now show about 75% of all farm products are eaten up somewhere else than on the farm where they were grown. Creative processors like Cargill play an important part in

helping supply this growing market. Cargill's 26 factories and processing plants are all here to the growing areas of the farm products needed. This makes more markets available for the farmers of these areas. In addition, Cargill's grain market buying division sells grain to other processors all over the world and thus helps get better prices for your farm products.



CARGILL Creative Processors of Farm Products

Processing and Grain Marketing Offices in Minneapolis and 35 other cities



This is how Cargill is telling the importance of processing and processors to farmer-readers of papers like The Farmer, Wallaces' Farmer, Dakota Farmer, etc.

Look to
PRATER
 for meal processing
 equipment

As the recognized leader in the design of meal processing systems, PRATER has the experience and manufacturing facilities for completely outfitting your plant with:

PRATER
DUAL SCREEN PULVERIZERS

Known thruout the industry as the perfect granular grinder, with greater capacity — lower operating cost.

PRATER
CAKE BREAKERS

For disintegrating press cake before adding moisture and final grinding.

PRATER
GRANULATORS

For reducing press cake prior to entry into solvent systems.

PRATER
WATER BALL BREAKERS

For breaking up agglomerations of solvent extracted flakes after adding moisture.

PRATER
PERMANENT MAGNETS

For safeguarding fast moving machinery from the destructive effects of tramp iron.

PRATER
ROTARY AIRLOCK FEEDERS

For sealing off the bottom discharge of dust collectors, bag filters, etc.

Whether you use mechanical screw presses, expellers, or the solvent extraction process, your best solution to meal processing problems is to get the advice and assistance of experienced PRATER Engineers.

Prater Pulverizer Company

1527 South 55th Court



Chicago 58, Illinois

**NEW PRODUCTS
 and SERVICES**

CONVEYOR LEASE PLAN. Gravity and belt conveyors are available on lease for the first time as a result of a new rental plan announced by Rapids-Standard Co.

The company's line of package-type conveyors are available under the lease plan, enabling firms to install and use the labor and time-saving equipment without making a major capital investment.

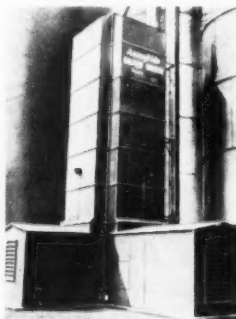
Manufacturers, wholesalers, and retailers can now lease conveying equipment ranging from a single inter-floor belt conveyor to a complete materials flow system.

Under the plan, conveying equipment is installed by the Rapids-Standard Co., Inc., for a mutually agreed on charge. A fixed monthly sum covers the use of equipment. Insurance, maintenance, repair and personal property tax are paid by the conveyor manufacturer.

Further information on the details of the conveying equipment lease plan may be had by writing to Soybean Digest, 3c, Hudson, Iowa.

GRAIN DRIER. Culminating several years of field testing, research, and design, Aeroglidge Corp. has redesigned its drier and is offering an entirely new and improved unit for 1953.

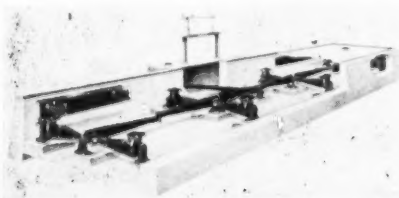
Climatic conditions constitute one of the major factors in determining performance of a grain drier. The firm says the Aeroglidge, with its climatic compensator, is the only drier that alters its drying and cooling sections to meet weather and temperature changes.



The climatic compensator makes it possible to proportion air through the drying and cooling section of the drier for optimum results at various temperature levels. Aeroglidge's induced draft design makes it possible to vary the proportion of air through the drying and cooling section by an easily adjustable damper arrangement.

The climate compensator insures a maximum output from the drier even under the slight temperature variation encountered between night and day operation. The unit also greatly increases the effectiveness of the drier when the unit is being used without heat as an aeration device.

For detailed information write Soybean Digest 3h, Hudson, Iowa.

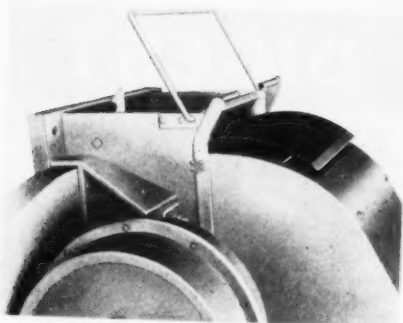


TRUCK SCALES. An eight-page folder (Form No. 678) just released, illustrates and describes the complete line of modern, heavy-duty Howe four-section straight lever ball-bearing motor truck scales for weighing big truck and trailer loads.

The folder reviews many exclusive Howe features including the renowned ball-protected bearings, "inside" anti-friction plates and other construction details.

Complete specifications and pit dimensions are listed.

For further information and a free copy of Form No. 678, write Soybean Digest 3a, Hudson, Iowa.

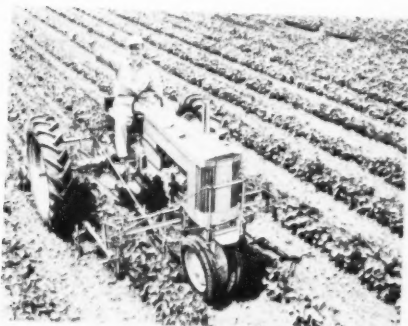


QUICK SCREEN CHANGE. Screen replacements in a few seconds, during operations, are now made possible by the new Schutte Quick-Screen-Change Hammer Mill.

Without stopping the mill or opening the cover, the screen is easily withdrawn and replaced, sliding smoothly on non-binding, leak-proof grooves. There is no need to remove any other parts. A lever lock is merely tripped and a wing nut loosened to release the hand guard.

Where varying materials and grist sizes require frequent screen changing, the new Schutte Hammer Mill will save considerable time and power, it is claimed.

New bulletin, with complete details, will be mailed on request to Soybean Digest 3c, Hudson, Iowa.



NEW TRACTOR LINE. Three new farm tractors—the "40" series—are announced by John Deere. They are now in production.

The Models "40" Standard and "40" Tricycle-Type (shown above) are general-purpose tractors designed to furnish complete power for small to medium-size farms; helper power for larger farms. They are rated as full two-plow tractors on most soils.

The "40" Crawler is a new track-type model that replaces the "MC." The engine in all three tractors is the same and produces about 15 percent more power than the engine in the models they replace.

For further information about these tractors write Soybean Digest 3d, Hudson, Iowa.

PRESSURE REGULATOR. Fischer & Porter Catalog 29 describes the new constant pressure differential regulator, and the new instrument air pressure regulator. The unit is used to regulate purge flows of liquid or gas, for liquid level measurement or in dual arrangement for specific gravity measurement.

It is a compact design with a unique pressure balanced valve which maintains constant discharge pressure with very low "droop."

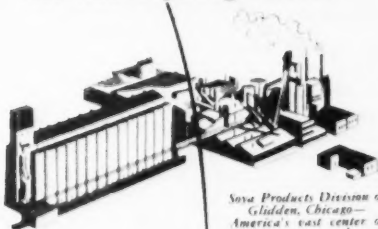
For details write Soybean Digest 3g, Hudson, Iowa.

MARCH, 1953



*Pacemaker
in
Soya Research*

...Your most dependable source
for ALL Soya ingredients



*Soya Products Division of
Glidden, Chicago—
America's vast center of
soybean research and
processing, often referred
to as soybean city.*

Call on GLIDDEN to keep
Your Industrial Products out AHEAD!

**Soya Protein Materials
for Industrial Uses**

ALPHA* PROTEIN • PROSEIN* • SPRAYSOY*
PROSOY* • MULSOY*

Glidden research, concentrated on the business of realizing the full promise of the versatile soybean, has produced a host of soya materials which are now playing useful roles in the manufacture of a wide variety of products. These include paper, wallpaper, insulating board, paint, floor coverings, textiles, rubber, leather, insecticide sprays, fire-fighting foam, gasoline, grease, oil, adhesives and emulsions. Glidden's complete technical service is always available to help determine the value of any soybean materials in your field.

*Trade Mark Registered

THE GLIDDEN COMPANY

SOYA PRODUCTS DIVISION

1825 N. Laramie Avenue • Chicago 39, Illinois

WASHINGTON DIGEST

CCC POLICY. The Washington soybean story this month centers on cottonseed.

Commodity Credit Corp. policies in handling the cottonseed price support program are a key factor in the price of soybeans and soybean products, not only this spring and summer, but next fall as well.

Three questions are involved:

1—What will be CCC sales policy in disposal of cottonseed meal stocks, now accumulating, when price ceilings on feed products are removed?

2—What will be CCC sales policy on disposal of extremely large stocks of cottonseed oil, not only for the balance of this season but next fall?

3—Will the 1953 cottonseed crop be price supported, and if so, at what level and by what method?

None of these policy questions had been resolved in late February, but all were under consideration. This is the general situation:

Meal prices: As of mid-February, CCC had accumulated a little more than 90,000 tons of cottonseed meal, and its acquisitions were increasing. CCC policy has been to sell at the ceiling price at the point of storage, less \$2 a ton for warehousing, plus cost of bags, some freight and minor fees.

The basis for this pricing formula will be removed when price ceilings on meals are lifted, probably not later than Mar. 15.

The legal requirement that CCC sell acquired stocks at not less than cost plus 5 percent does not apply to end products. So there is nothing in

the law which prohibits CCC from selling at any price it chooses.

CCC meal will have to be moved into trade channels before hot weather sets in. CCC probably will sell its meal stocks at market prices, feeding it in slowly so as to create a minimum of price disturbance.

Oil stocks: A record carry-over of food fats, exclusive of butter, is anticipated next Oct. 1 by fats and oils officials. BAE estimates Oct. 1 stocks at about 20 percent higher than last year—or in the neighborhood of 920 million pounds.

As of mid-February, CCC had been tendered 568 million pounds of crude cottonseed oil, and delivery had been made on all but 49 million pounds.

Commodity Credit was expected to acquire at least another 100 million pounds of cottonseed oil by Mar. 30, the date on which offers to purchase oil probably will end.

Counting in carry-over of oil from the old crop, CCC holdings of cottonseed oil are expected to total well over 700 million pounds.

This represents a volume equal to more than three-fourths the estimated total stocks of all food fats, exclusive of butter, next Oct. 1, and nearly 15 percent of the estimated total production of edible vegetable oils from the 1952 crop.

SOYBEANS. The importance to soybeans of CCC's disposal policy on such large holdings, not only for the balance of this season but next fall as well, is obvious.



By **WAYNE DARROW**
Washington Correspondent for
The Soybean Digest

The present sales price on CCC-held cottonseed oil is 17 $\frac{3}{4}$ cents a pound, about 11 $\frac{1}{2}$ cents above the market. So far there is no indication that the price is to be lowered.

Most officials believe that the cottonseed support will result in higher prices for soybeans late this spring as users turn more and more toward soybean oil. A difference of 1 cent in the price of soybean oil means about 10 cents a bushel in the price of beans.

BAE says "Without the price support program, prices of edible oils would be much lower than at present. As higher prices for soybean products are likely later in the crop year, soybean prices probably will rise in coming months."

BAE also points out that free commercial stocks of food fats next fall may be reduced to a minimum working level because of the large CCC takings of cottonseed oil.

Despite the potential large government holdings of cottonseed oil next

Members: Leading Exchanges

Denco Company

BROKERS VEGETABLE OILS, ANIMAL FATS

Telephone: Webster 9-2055

327 So. La Salle Street, Chicago 4, Illinois

fall, most officials see no cause for concern. Lard production is expected to be down next year. The outlook for exports next season appears to be reasonably good at this stage. Even with fairly large cotton and soybean crops in 1953, officials think there is a good chance to reduce total edible fats and oils supplies during the 1953-54 season.

1953 SUPPORTS. Secretary Benson's cottonseed advisory committee made two recommendations on 1953 cottonseed price supports:

1—That the date for offering cottonseed meal to CCC not be extended beyond Mar. 30.

2—That a price support program be worked out for the 1953 crop through loans to and purchases from producers at 90 percent of parity. A small committee is working with PMA officials to develop details.

This indicates a return to the 1949 type of program. The government offered loans to producers, but since there is only limited cottonseed storage on farms, bulk of the support was through CCC purchase of cottonseed.

IMPORTS. Imports of oilseed meal and cake in the first quarter of this marketing year, October through December 1952, were more than triple the total for the same period the year before, according to census figures recently released.

Nearly 40 percent of the total imports for the period were cottonseed cake and meal. Exports totalled only a little more than 5,000 tons, practically all soybean. Here are the figures on imports and exports for the period in both years:

	Imports		Exports	
	1951	1952	1951	1952
—All in Short Tons—				
Soybean	2,471	29,877	23,108	5,139
Cottonseed	32,912	48,807	30,365	111
Linseed	131	13,919	4,048	6
Peanut	350	3,404	2,068	0
Copra	18,658	34,960		
Other	1,472	34,393	3	0
Total	55,994	174,360	59,792	5,256

Import restrictions on fats and oils are virtually sure to be extended beyond the present expiration date of June 30, 1953. A provision to extend the import control law is included in the bill to extend the Defense Production Act. Wording of the new bill is virtually the same as the one in effect now.

There are no import controls on soybeans or soybean products at this

time, but the only reason there aren't is that only small amounts are coming into this country.

BENSON. Without surrendering his free enterprise principles, Secretary of Agriculture Benson appears to be executing a moderate shift of position in his public attitude toward farm price supports.

His recent public expressions have been somewhat less aggressive in advocacy of individual initiative and self-help than in the first three weeks of his Administration.

Benson and his top aides are very sensitive to the decline in farm prices. They are careful to point out that the decline started well before the new Administration took over.

They are paying much closer attention than in the first few weeks to the reactions and attitudes of farm leaders in Congress. They are repeating at every opportunity that the price support laws laid down by Congress will be carried out faithfully.

They are moving toward change cautiously. They are asking for time to examine each major problem, to make studies, to make full use of advisory committees.

The controversy over Benson's ideas, coupled with falling prices, has strengthened the hand of congressional farm leaders who favor high price supports.

Three things emerge from the first month and a half of Benson's Administration:

1—Until new price support legislation is enacted, the most likely major changes will be in the methods of price support.

There is a definite shift toward using the normal facilities and channels of trade for handling price support operations, rather than relying so much on government agencies and officials.

2—The Administration will make vigorous efforts to develop markets and merchandise farm commodities, both in the export and domestic markets.

3—An intensive study of methods to improve price support programs for the longer run also will be made. The beginnings of this work already are under way, including investigation of price insurance as a new approach to price supports, and two-price systems for wheat and cotton.

HUGE PROFITS in SOYBEANS

Experience the thrill of your life, trading in SOYBEANS, on the Chicago Board of Trade.

SEPTEMBER 1939, when Hitler marched his goose-stepping troops in Poland, starting World War 2, we advised buying SOYBEANS, then 72c bu., and predicted \$2 bu. They went to \$2.

SPRING 1950. We advised buying soybeans, then \$2.40 bu., and predicted \$3.40 for them. Profits were taken at \$3.40, BEFORE the government put the \$3.33 ceiling on them. We next advised selling July beans short at the \$3.33 ceiling, and fine profits were taken on the big decline that followed. Our MAY 24, 1952, letter, written when JULY BEANS were around \$3, predicted the "corner" of the remnants of the 1951 crop and the \$3.33 ceiling. The July 1952 option went to the \$3.33 ceiling!

Subscribers Wrote Us

"Have taken over \$100,000 profit out of commodity trades the past 2 years because of YOUR service."—KANSAS.

"Made about \$24,000 on a capital of about \$5,000 to begin with."—N. C.

"More than doubled my money in commodities following your advice, since latter part of August to early December 1951."—TEXAS.

"Following your market advices, made some big money.—Through profits from your advice, have just purchased another 160-acre ranch."—CALIFORNIA.

MARKET ADVISORY BUREAU began business Feb. 1, 1928—now in our 25th year. Registered with Securities & Exchange Commission. Market letters mailed TUESDAYS and FRIDAYS covering (1) Soybeans (2) Cottonseed oil (3) Wheat (4) Corn (5) Oats (6) Cotton (7) Stocks—ALL THESE SEVEN GREAT BIG MARKETS IN EACH MARKET LETTER! We give DEFINITE buying and selling advices.

Let's Get Acquainted: Our Next 5 Market Letters, Via Airmail, Only \$1. Immediate Acceptance. Use Order Form Below.

Market Advisory Bureau

P. O. Box 2105
Atlanta 1, Ga.

("Get-Acquainted" Offer to
SOYBEAN DIGEST readers)

Send Me Your Next 5 Tuesday and Friday Market Letters, Via Airmail. Enclosed is \$1 in Full Payment.

Name _____

Address _____

(please write plainly)



PRE-TESTED NOD-O-GEN

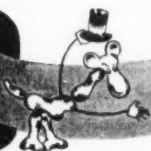
IS AS NEAR AS THIS

Call LAFAYETTE 3-3000, CHICAGO

FARM LABORATORY DIVISION

THE ALBERT DICKINSON CO. Chicago 90, Ill. P. O. Box 788
Founded 1854

NOD-O-GEN



The Pre-Tested Inoculator
The Crop and Profit "Pepper Upper"

--- MARKET STREET ---

We invite the readers of **THE SOYBEAN DIGEST** to use "MARKET STREET" for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here. Rate: 10c per word per issue. Minimum insertion \$9.00.

FOR SALE—ALL MODELS ANDERSON expellers, French screw presses, flaking and cracking rolls, stack cookers, desolventizers, filter presses, Anderson rotary tube dryers, meal coolers. Pittock & Associates, Glen Riddle, Pa.

FOR SALE—2,000 BUSHELS OF STATE Certified Ogden soybeans. Beans have been cleaned, graded and sacked for delivery. Phone Deering 2851 or write Jeff Wade, Jr., Bragg City, Missouri.

FOR SALE: DISMANTLING SOLVENT Soybean Oil Meal Plant in Southern Michigan. McLaughlin, Ward, Jackson, Mich.

SEED DIRECTORY

A charge of \$1 will be made to subscribers for listing one variety in the April issue, 50 cents for each additional listing. Quantity for sale and variety are listed.

ARKANSAS

Burdette G. A. Hale, Hale Seed Farms, 5,000 bu. registered Hale Ogden 2.

ILLINOIS

Charleston—Dale C. White, 1611 6th, 500 bu. certified Adams, 300 bu. certified Lincoln. Delivered in 90-lb. bags.

Pontiac—Steve Turner Farm Seeds, 1505 N. Aurora St., 1600 bu. certified Adams, 2,000 bu. certified Hawkeye, 1,000 bu. certified Blackhawk.

San Jose—Kelly Seed Co., 5,000 bu. certified Hawkeye, 1,100 bu. non-certified Hawkeye, 3,000 bu. certified Lincoln.

Sullivan—W. E. Elder, 800 bu. certified Adams.

INDIANA

Lafayette—Agricultural Alumni Seed Improvement Association, Inc., U. S. 52 North, 800 bu. foundation Hawkeye, 350 bu. foundation Lincoln.

Syracuse—Samuel Mohler, Rt. 1, 1,000 bu. registered Hawkeye.

Valparaiso—Wyckoff Hybrid Corn Co., certified Blackhawk, certified Richland, certified Hawkeye; uncertified Monroe, uncertified Korean and uncertified Earlyana. Excellent quality and high germination.

IOWA

Castana—Fred Hawthorn, 950 bu. certified Hawkeye.

Charles City—Sax Seed Farms, 804 N. Main St., 1,000 bu. certified Blackhawk, 1,500 bu. uncertified Hawkeye.

Iowa Falls—Harold Hayden, Rt. 2, 650 bu. certified Hawkeye, 520 bu. certified Blackhawk.

MINNESOTA

Lake Crystal—Wayne Othoudt, 525 bu. certified Blackhawk, 340 bu. certified Wisconsin 606 Manchua, 150 bu. certified Ottawa Mandarin.

Montevideo—John W. Evans, 100 bu. registered Capital, 500 bu. registered Blackhawk, 400 bu. certified Blackhawk, 500 bu. uncertified Blackhawk, Redwood flax, registered and certified and uncertified.

Waterville—Clarence Bohlen, 350 bu. certified Blackhawk.

MISSISSIPPI

Cleveland—John R. Dakin, Rt. 1, 600 bu. certified Ogden.

Schlater—H. C. McShan, 3,000 bu. Mississippi certified Ogden.

MISSOURI

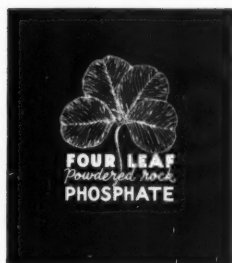
Bragg City—Jeff Wade, Jr., 2,000 bu. certified Ogden.

Portageville—O. A. Knight, 700 bu. certified Ogden, 600 bu. certified Perry.

WISCONSIN

Almena—George A. Becker, Rt. 1, Box 77, 1433 bu. blue tag certified Flambeau.

Rusk—V. K. Sherburne, 200 bu. Wisconsin certified Blackhawk, 500 bu. Wisconsin certified Monroe.



Powdered Rock Phosphate Boosted Soybean Yield 6 Bushels Per Acre

You can expect profitable increases in soybean yields if you use finely ground rock phosphate. Tests in Missouri showed that 1,000 pounds per acre, applied before planting, increased the soybean yield by six bushels per acre.

Soybeans require large amounts of phosphorus for healthy growth and large yields. Many growers have found that the most economical way to supply this vital plant nutrient is with *Four Leaf Powdered Rock Phosphate*.

Four Leaf is ground *finer than flour*—85-90% will pass through a 200 mesh screen. It works down to root areas faster and is more quickly dissolved by the plant's own root acids and by decaying organic matter. An application of 1,000 pounds per acre will furnish enough phosphorus for this year's crop and for many future crops. Write for details today!

THOMSON PHOSPHATE DEPARTMENT

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

Dept. Soy, 20 North Wacker Drive, Chicago 6





**MEN LIKE YOU
MADE...**

Seedburo
Steinlite
400G

THE WORLD'S MOST WIDELY USED MOISTURE TESTER

YOU TOLD US WHAT YOU WANTED

Our progress through the years depended on your help. Three years ago you asked us to make the world's fastest moisture tester even faster to operate. You asked for a method to check Steinlite accuracy in the field. You wanted to test wide varieties of mixed feeds accurately.

CONSTANT RESEARCH ANSWERED YOUR REQUESTS

Our laboratories had already been working on these problems. A built-in thermometer increases speed. Test pads now check accuracy on the spot. Wider moisture range tests everything from 1½% dried feed to 47% high moisture corn. Voltage stabilizer and other electrical improvements maintain accuracy.

NOW BETTER THAN EVER

The 400G offers mechanical improvements for more accurate day-to-day operation. It is the sturdiest, most dependable tester under all conditions. Because the Steinlite 400G is so easy to operate, non-technical help can make accurate, fast tests. Colleges and laboratories use the Steinlite for its accuracy.

HAVE YOU TRIED THE 400G?

Thousands have already replaced their old testers with this improved unit. Garden City Exchange bought 7 new Steinlites. Union Equity Cooperative Exchange of Enid bought 49 for their cooperative members. Bob Hink of William's Milling Co. says: "The 400G is the finest tester for on the spot testing."

No matter what tester you're now using, you'll be glad you tried the new Steinlite 400G on 10 days free trial.

SEEDBURO
EQUIPMENT COMPANY

727 Converse Building



Chicago 6, Ill.

- ☐ Please rush my 400G Steinlite for 10 day trial.
☐ Send me more facts about the 400G.

Name _____

Company Name _____

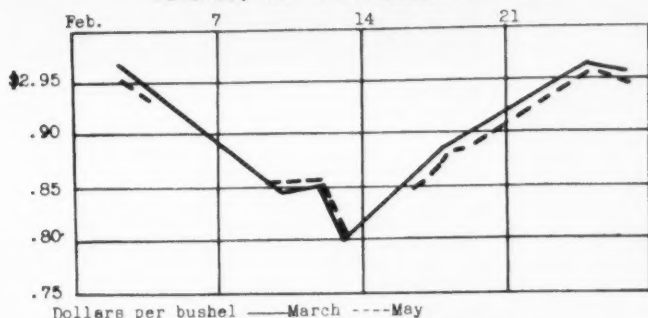
Address _____

City _____

Zone _____

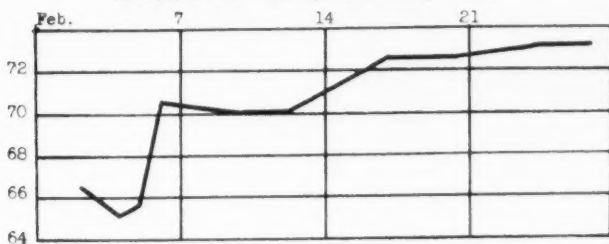
State _____

FUTURES, NO. 2 SOYBEANS, CHICAGO



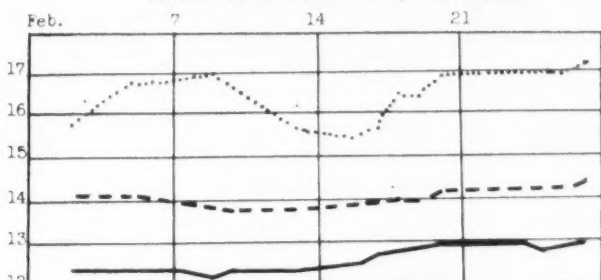
Dollars per bushel — March ---- May

SOYBEAN OIL MEAL, DECATUR, BULK



Dollars per ton.

CRUDE VEGETABLE OILS, TANKCARS



Cents per pound—Soybean ---- Cottonseed ... Coconut

Markets Stronger

Beans, meal and oil markets were all stronger in February after a bad

early slump in beans and dips in the meal and oil markets.

SOYBEANS. Reasons given for the advance in the market:

MARKETS

1—Small offerings. Movement in most areas has been small since Jan. 1, and a good share of those that are moving have been exported.

2—Continued export demand which has greatly reduced supplies at seaports. It is said that Chinese nationalists are blocking shipment of Manchurian soybeans to Europe, thus making Europe more dependent on the United States.

3—Indications that processors cut materially into their stocks of beans during the past month.

4—The government's cottonseed support program is apparently giving soybeans a big price lift.

MEAL. Reduced processor offerings apparently had more effect on the market than any large pickup in demand for soybean oil meal.

Inability to meet costs at the current prices has resulted in a number of Expeller plants being shut down. Most plants in operation are running at well under capacity. Some Southern processors have been exporting beans they had intended to crush.

Large imports of oilseed cake and meal compared to very small exports were a large factor in the recent weak soybean oil meal market, according to Production and Marketing Administration.

OIL. Improved refiner demand was the chief factor in a strengthening soybean oil market.

A total of 15,440,000 bushels of soybeans have been inspected for overseas shipment since Oct. 1, according to PMA. This compares with 7,677,000 bushels inspected for the same period last year.

THE NELLIS FEED CO.

Brokers of Soybean Oil Meal

Chicago 4, Ill.

Wabash 8-7389 TWX 423
3832 Board of Trade Bldg.

St. Louis 2, Mo.

Chestnut 1122 TWX 938
405 Merchants Exch.

Facts about Inoculating without Water

No one likes to use water when applying inoculant to seed. But farmers reasoned that since the fine, easy flowing humus base of LEGUME-AID Inoculant visibly clings to dry seed, the moistening process could be omitted. They tried it and claim success, even with legumes as smooth as soybeans.

LEGUME-AID

Directions for using the famous "Inoculant in the Carton" will not be changed until government agronomists approve the dry-use method. Meanwhile we suggest that farmers who wish to experiment, try dry inoculation with LEGUME-AID on only part of their seed and moisten the rest in the conventional way. Then compare results.



Tell your dealer you want LEGUME-AID

Agricultural Laboratories, Inc.

1529 Chesapeake Ave.

Columbus 16, Ohio

The INOCULANT in the CARTON

Ship By

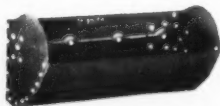


TANK TRUCK
SOYBEAN OIL HAULING
OUR SPECIALTY
STILLPASS TRANSIT CO.
CONTRACT HAULERS

Inter and Intra State Tank Truck Operators. Edible Oils
4967 Spring Grove Avenue Mulberry 6108-6103
Cincinnati 32, Ohio If no answer call Grandview 5599

A Sales Record of More Than

12 MILLION
SUPERIOR
ELEVATOR CUPS
DP-OK-CC-V



For Better Results—Longer Life—More Capacity
"Elevator Cups Is Our Business, Not a Sideline"

K. I. WILLIS CORPORATION
MOLINE, ILLINOIS

IN THE MARKETS

● **SOYBEAN INSPECTIONS.** Marketings of soybeans dropped sharply in January on the basis of the quantity inspected at all markets, reports Production and Marketing Administration. Inspected receipts during January totaled 8.9 million bushels compared with 14.2 million in December and 13.0 million in January 1952.

Due to the heavy receipts in October, inspections October through January this season at 123.3 million bushels were 8.5 million above the same months last season. Of the soybeans inspected in January, 59 percent graded No. 2 or better compared with 45 percent in December and 66 percent in January 1952.

● **EXPORTS.** U. S. exports of soybeans and soybean oil for December, as reported by the office of Foreign Agricultural Relations of the U. S. Department of Agriculture,

Soybeans	5,923,815 bu.
Soybean oil:	
Crude	13,553,212 lbs.
Refined, but not further processed	2,112,387 lbs.
Refined, deodorized and hydrogenated	1,150,761 lbs.

Converted to a soybean equivalent basis, the exports for December amounted to 6,766,550 bushels.

● **STOCKS.** Soybean stocks in all positions on Jan. 1 totaled 224 million bushels, according to reports assembled by the Bureau of Agricultural Economics. This quantity is slightly larger than a year earlier and second largest of record.

From an estimated supply of 295 million bushels (carry-over of 3,575,000 bushels and the 1952 crop of 291,682,000 bushels) current stocks indicate a disappearance of 71 million bushels. Soybeans processed in the October-December quarter were reported by the Bureau of the Census at 65.9 million bushels.

Also, considerable quantities were exported, small amounts were used for feed and other purposes, and some 1952 crop beans were processed before Oct. 1.

The sum of this accountable disappearance exceeds that shown by current estimates of supply and stocks, a difference that in the past has cleared up as the season progressed, with reduced possibilities of duplication between stocks reported for the various positions.

STOCKS OF SOYBEANS JAN. 1, 1953, WITH COMPARISONS

Position	Jan. 1 1951	Jan. 1 1952	Oct. 1 1952	Jan. 1 1953
Thousand bushels				
On Farms*	101,728	104,167	1,958	81,731
Terminals†	13,915	9,760	710	13,394
Commodity Credit Corp. (1)‡				1,037
Processing Plants‡	77,163	61,852	611	79,552
Int. Mills Elev. & Whses. (2)§	38,945	44,399	296	48,361
Total	231,751	220,178	3,575	224,375

(1) Owned by CCC in transit to ports. (2) All off-farm storages not otherwise designated. * Crop Reporting Board. † Grain Branch F.M.A. ‡ Commodity Credit Corp. § Bureau of the Census. ¶ Crop Reporting Board.

OFF-FARM (1) STOCKS OF SOYBEANS, JAN. 1, 1953, WITH COMPARISONS

State	Jan. 1 1952	Oct. 1 1952	Jan. 1 1953
Thousand bushels			
Ohio	12,533	14	13,014
Ind.	8,296	*	11,970
Ill.	40,429	372	48,808
Minn.	3,641	53	7,490
Iowa	15,419	134	21,819
Mo.	8,348	177	8,091
Kansas	2,339	25	3,809
N. C.	1,902	1	1,760
Ky.	2,125	2	2,453
Ark.	4,550	*	6,003
All Other	14,429	839	17,427
U. S.	116,011	1,617	142,844

(1) Includes stocks at processing plants as enumerated by the Bureau of the Census; commercial stocks at terminals reported by the Grain Branch, F.M.A.; CCC stocks in transit to ports; and stocks in interior mills, elevators and warehouses.

* Included in "all other" to avoid disclosing individual operations.

SOYBEAN DIGEST

**AVERAGE PRICE FOR SOYBEANS RECEIVED BY FARMERS.
EFFECTIVE PARITY PRICE AND PRICE SUPPORT RATES**
Dollars per bushel

Commodity	Average Farm Price		Parity		National Average Price Support Rate	
	Jan. 15 1952	Dec. 15 1952	Jan. 15 1953	Jan. 15 1953	1952 crop	1953 crop
Soybeans	2.78	2.73	2.69	2.81	2.56	2.56

Average farm and parity prices from Crop Reporting Board.

SOYBEANS: INSPECTED RECEIPTS, BY GRADES, AND PERCENT(1)

Grade	Oct.-Jan. 1951-1952		Oct.-Jan. 1952-1953		January 1952		December 1952		January 1953(2)	
	1,000 bu.	%	1,000 bu.	%	1,000 bu.	%	1,000 bu.	%	1,000 bu.	%
No. 1	23,307	20	20,582	17	3,097	24	1,219	9	1,234	14
No. 2	50,303	44	53,843	44	5,409	42	5,094	36	4,024	45
No. 3	28,964	25	22,677	18	2,648	20	4,432	31	1,564	18
No. 4	10,138	9	16,977	14	936	7	1,916	13	1,287	14
Sample	4,239	4	9,237	7	909	7	1,536	11	819	9
Total	114,851	100	123,316	100	12,998	100	14,197	100	8,928	100

(1) Carlot receipts have been converted to bushels on the basis that 1 carlot equals 1,650 bushels.

(2) Of the January 1953 receipts, 18,000 bushels were Black, and the remainder Yellow soybeans. Inspections of soybeans in January included 747,000 bushels as cargo lots, 328,000 bushels as truck receipts, and the balance as carlot receipts.

Based on reports of inspections by licensed grain inspectors at all markets.

SOYBEANS: SUPPLY AND DISTRIBUTION, 1951-53

	1951-52	1952-53
Carry-over(1)	4,159	3,575
Production	282,477	291,682
Total supply(2)	286,636	295,257
Farm use including seed for season	22,097	22,800
Quantity remaining for processing, export, or carry-over	264,539	273,257
Disappearance through Dec. 31(3)	67,851	65,901
Crushed for oil or processed(4)	7,281	13,566
Exported	75,132	79,467
Total	189,467	193,780
Balance on Jan. 1 for processing, export, or carry-over	189,467	193,780

(1) Soybean stocks as of Oct. 1. (2) Imports negligible. (3) Soybeans, October through December. (4) New crop soybeans crushed prior to Oct. 1 not included. It is believed that 4.6 million bushels of the 1952 crop were processed prior to Oct. 1 while only 2.3 million bushels of the 1951 crop were processed prior to Oct. 1.

● **CAKE, MEAL IMPORTS.** Oilseed cake and meal continued to be imported in large volume in October 1952 when 69,755 short tons came into the United States. Exports during the month were small, totaling only 1,630 tons. Therefore, net imports were 68,125 tons, reports Foreign Crops and Markets of U. S. Department of Agriculture.

UNITED STATES: Net trade in oilseed cake and meal, by kind, year beginning Oct. 1, annual 1949-51 (1) (Short tons)

Year	Copra	Cotton-seed	Linseed	Peanut	Soybean	Other	Total
1949	56,486	-18,830	-1,684	-42,673	-21,312	33,219	4,206
1950	65,762	76,779	-28,223	-22,896	-148,279	16,204	-49,647
1951	193,718	168,198	16,277	3,005	-17,648	31,132	394,682
1952	12,462	32,479	2,731	1,678	3,833	14,951	68,125

(1) Minus sign (-) indicates net export.
Source: Compiled from Bureau of Census data.

● **PLYWOOD GLUE.** Consumption of soybean glue by the softwood plywood industry in December was 4,147,000 pounds, compared with 3,975,000 pounds in November, reports Bureau of the Census.

Total consumption of all glues, including casein, urea resins, phenolic resins and others was 8,581,000 pounds in December.

Stocks of soybean glue Dec. 31 totaled 2,607,000 pounds compared with 3,078,000 pounds Nov. 30.

Consumption of soybean glue by the hardwood plywood industry totaled 1,535,000 pounds the third quarter of 1952, compared with 1,155,000 pounds the second quarter, and 1,544,000 pounds the third quarter of 1951.

Stocks of soybean glue held by the hardwood plywood industry Sept. 30 totaled 790,000 pounds.

● **PRICE SUPPORT.** The U. S. Department of Agriculture reports that farmers put a total of 10,422,000 bushels of soybeans under support as of Jan. 15.

Of this amount 5,258,000 bushels were stored on farms; 4,815,000 were warehouse-stored; and 349,000 bushels were under purchase agreements.

MARCH, 1953

you get
*Better
Extraction at
a Lower
Operating Cost*
when you use
**ESSMUELLER
SOYBEAN
SERVICE!**

Essmuller Soybean Service is devoted entirely to helping you solve your soybean extraction problems. Backed by 75 years of experience, this outstanding service is available to you without obligation.

**ROLL GRINDING
and CORRUGATING**

To get the most efficient and economical extraction, your cracking rolls must be sharp! Regardless of the size or finish of your rolls, the ESSMUELLER CO. has the experience, skill and equipment necessary to keep your rolls in top condition.

ELEVATORS

From the smallest to the largest we can supply any standard or special unit elevator in regular or special steel construction.

CONVEYORS

All types for every operation. Standard screw or special design in regular or stainless steel.

We Invite Your Inquiries!



Our 75th Year

The ESSMUELLER Company
Engineers • Manufacturers
ST. LOUIS 3, MISSOURI KANSAS CITY 3, MISSOURI

JONES-HETTELSATER CONSTRUCTION CO.


33 YEARS as
Designers and Builders

★
FLOUR MILLS

★
ELEVATORS

★
FEED & SOYBEAN PLANTS

1911 Baltimore Ave.
KANSAS CITY 8, MISSOURI



*S*ure we're proud
though we hate to brag
—your satisfaction is
—“in the bag”

Fredman Bag Company
DA 4114—330 E CLYBOURN MILWAUKEE, WISCONSIN

ESTABLISHED 1889

● **FACTORY USE SOYBEAN OIL.** Factory production of crude soybean oil in October was 238,300,000 lbs. compared with 155,632,000 lbs. in September, reports Bureau of the Census. Production of the refined oil totaled 199,066,000 lbs. in October; 166,542,000 lbs. in September.

Factory consumption of crude soybean oil was 216,142,000 lbs. in October; 180,247,000 lbs. in September. Consumption of the refined oil was 210,621,000 lbs. in October; 187,729,000 lbs. in September.

October usage of crude soybean oil: soap 90,000 lbs.; paint and varnish 811,000 lbs.; lubricants and greases 65,000 lbs.; other inedible products 1,205,000 lbs.

October usage of refined soybean oil: shortening 66,500,000 lbs.; margarine 9,353,000 lbs.; other edible products 5,697,000 lbs.; soap 56,000 lbs.; paint and varnish 6,352,000 lbs.; lubricants and greases 13,000 lbs.; other inedible products 8,548,000.

October usage of edible hydrogenated soybean oil: shortening 27,394,000 lbs.; margarine 57,301,000 lbs.; other edible products 537,000 lbs.; inedible products 32,000 lbs.

Factory production of crude soybean oil in November was 231,017,000 lbs.; of refined oil 173,576,000 lbs. Factory consumption of crude soybean oil in November was 190,434,000 lbs.; of refined oil 171,950,000 lbs.

Factory and warehouse stocks of crude soybean oil totaled 139,602,000 lbs. Nov. 30; of the refined oil 73,545,000 lbs.

November usage of crude soybean oil: soap 79,000 lbs.; paint and varnish 388,000 lbs.; lubricants and greases 8,000 lbs.; other inedible products 1,312,000 lbs.

November usage of refined soybean oil: shortening 37,437,000 lbs.; margarine 4,813,000 lbs.; other edible products 5,893,000 lbs.; paint and varnish 6,072,000 lbs.; lubricants and greases 13,000 lbs.; linoleum and oilcloth 1,032,000 lbs.; other inedible products 9,199,000 lbs.

November usage of edible hydrogenated soybean oil: shortening 28,696,000 lbs.; margarine 53,726,000 lbs.; other edible uses 921,000 lbs.; inedible uses 27,000 lbs.

Factory production of crude soybean oil in December was 226,633,000 lbs.; of refined oil 198,811,000 lbs. Factory consumption of crude soybean oil in December was 214,502,000 lbs.; of refined soybean oil 182,331,000 lbs.

Factory and warehouse stocks of crude soybean oil as of Dec. 31 totaled 153,651,000 lbs.; of refined soybean oil 83,716,000 lbs.

December usage of crude soybean oil: soap 83,000 lbs.; paint and varnish 424,000 lbs.; lubricants and greases 38,000 lbs.; other inedible products 1,107,000 lbs.

December usage of refined soybean oil: shortening 41,142,000 lbs.; margarine 4,451,000 lbs.; other edible products 5,614,000 lbs.; soap 32,000 lbs.; paint and varnish 6,474,000 lbs.; lubricants and greases 10,000 lbs.; linoleum and oilcloth 1,247,000 lbs.; other inedible products 6,676,000 lbs.

December usage of edible hydrogenated soybean oil: shortening 33,147,000 lbs.; margarine 60,348,000 lbs.; other edible products 393,000 lbs.

Usage of vegetable oil fatty acids in December: soap 2,391,000 lbs.; chemicals 728,000 lbs.; paint and varnish 1,570,000 lbs.; lubricants and greases 40,000 lbs.; other inedible products 1,915,000 lbs.

● **FUTURES TRADING** and open contracts in soybean oil meal and soy concentrates on Memphis Merchants Exchange Clearing Association (in tons bulk).

	Soybean Oil Meal		Soy Concentrate	
	Volume of Trading	Open Contracts	Volume of Trading	Open Contracts
Jan. 27	4,200	84,600		3,600
Jan. 28	2,900	86,000		3,600
Jan. 29	5,600	87,700	2,400	3,600
Jan. 30	1,700	88,000		3,600
Feb. 2	2,100	88,600		3,600
Feb. 3	4,900	88,900		3,600
Feb. 4	6,000	87,000		3,600
Feb. 5	5,700	86,100		3,600
Feb. 6	11,500	87,700		3,600
Feb. 9	8,600	90,000		3,600
Feb. 10	8,900	90,900		3,600
Feb. 11	12,400	92,200		3,600
Feb. 13	4,000	91,200		3,600
Feb. 16	4,900	90,300	100	3,500
Feb. 17	5,100	88,200	400	3,100
Feb. 18	2,900	88,500		3,100
Feb. 19	5,200	86,000		3,000
Feb. 20	13,800	85,700	100	3,000
Feb. 24	11,100	87,700		3,000

Total for 19 days reported 120,700

3,900

SOYBEAN DIGEST

**Tough and
Dependable**

BURLAP IS SPORTING A NEW LOW PRICE...

*and you can count
on a steady supply*



**Here's why it costs less
to pack oil seed meals
in BURLAP bags**

Along came 2 bumper crops of jute, the raw material from which burlap is made . . . and the price of burlap bags dropped to a level that makes them your best buy.

Get into this bright new burlap picture now. A plentiful supply is predicted for the future. And it's burlap, remember, that gives you all these important packaging extras at the lowest possible cost:

Tough and dependable, stands up under rough handling; easy to fill; stacks easily; a good "salesman" for your meal because it's the most economical bag for your customers . . . can be sold for salvage when empty.

If you have a packaging problem, now's the time to look to *burlap* for a solution. Contact your regular bag supplier, or write The Burlap Council, 155 E. 44th St., New York 17, N. Y.

THE BURLAP COUNCIL

It costs less to pack in burlap.

What are the Advantages of Buying Phillips 66 Hexane?

● SOUND INVESTMENT

No light ends to lose—no heavy residue. You buy only active solvent with a typical boiling range spread of 5° F.

● TOP QUALITY

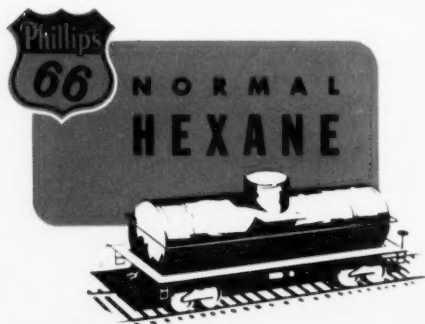
Rigid solvent specifications prevent contamination—add no foreign tastes or odors to your oil or meal. It's pure, clean, water-white!

● IMPROVED CONTROL

Phillips 66 Hexane has controlled uniformity to minimize your overall operating problems and reduce processing costs.

● ASSURED SUPPLY

Phillips, world's largest hexane producer, maintains a large fleet of solvent tank cars for prompt shipment of your orders.



Write now for complete information on Phillips 66 Solvents for soybean, cottonseed, flaxseed, tung nut, rice bran, corn germ, castor bean, alfalfa, animal fat and other oil extraction industries.

PHILLIPS PETROLEUM COMPANY

SPECIAL PRODUCTS DIVISION • BARTLESVILLE, OKLAHOMA